DOCUMENT RESUME

ED 361 783 CS 508 295

AUTHOR Riordan, Daniel G., Ed.
TITLE Proceedings of the Annual Meeting of the Council for Programs in Technical and Scientific Communication (19th, Boise, Idaho, October 8-10, 1992).
INSTITUTION Council for Programs in Technical and Scientific Communication.
PUB DATE Oct 92
NOTE 111p.; For other editions of these proceedings, see CS 508 288-294, ED 132 630, and ED 252 864-872.
PUB TYPE Collected Works - Conference Proceedings (021)

EDRS PRICE MF01/PC05 Plus Postage.
DESCRIPTORS Advisory Committees; *Conflict; Curriculum Development; Higher Education; Internship Programs; Models; Professional Development; *School Business Relationship; *Technical Writing; User Needs (Information)
IDENTIFIERS Professional Writing; Total Quality Management

ABSTRACT

Based on the theme of broadening the base of academic, industrial and professional connections, this proceedings presents papers delivered at the annual meeting of the Council for Programs in Technical and Scientific Communication (CPTSC). Papers in the proceedings are divided into four sections: Models for Connecting Academia, Industries, and the Professions; Making the Connections Better and Richer; Reaching More and Different Audiences and Students; and Working through Conflict. Papers in the proceedings are: "Developing A Successful Internship Program" (Deborah S. Bosley); "Refiguring Academic-Industry Relations: Technical Communications Research on a Two-Way Street" (Bob Johnson); "TC 101: Orientation to Technical Communication, Or Bringing Out the Frustrated Teacher in Your Industrial Colleague" (Jim Corey); "Designing Capstone and Other Professional-Level Completion Courses for Technical Communication Programs" (Elizabeth R. Turpin); "Technical Communication and TQM" Teaming Up for Curriculum Improvement" (Gisela Kutzbach); "Curriculum-Specific Communication Classes for Engineering Students: Providing Context and Connections" (Betsy M. Aller); "Reaching Out to User Communities and Non-Engineering Professions" (Jennie Dautermann); "Forging Connections between Academic and Workplace Environments: Scholars-in-Residence" (Meg Morgan); "The Benefits of the Inherent Conflict between Industry and Technical Communication Programs" (Anthony Flinn); "Working through Conflict: Tensions in Funded Projects" (Stephen Bernhardt); "Working through Conflict: Organizing Industry Advisory Groups" (Henrietta Nickels Shirk). The proceedings also includes the conference program and results of the annual business meeting. Appendixes present the constitution of the CPTSC; lists of meetings, sites, and dates; members of CPTSC, and a list of CPTSC officers. (RS)

ICS

ED 361 783

CPTSC

The Council for Programs in Technical and Scientific Communication

Proceedings
1992

Boise,
Idaho

CS508295

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION
CENTER (ERIC)

☑ This document has been reproduced as received from the person or organization originating it.

☐ Minor changes have been made to improve reproduction quality.

● Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

"PERMISSION TO REPRODUCE THIS
MATERIAL HAS BEEN GRANTED BY
Daniel Riordan

TO THE EDUCATIONAL RESOURCES
INFORMATION CENTER (ERIC)."

Preparation of the *Proceedings* is supported in part by the Department of English and the School of Liberal Studies, University of Wisconsin-Stout.

PROCEEDINGS

The Council for Programs in Technical and Scientific Communication

19th Annual Conference

Boise, Idaho
October 8-10, 1992

Daniel G. Riordan
Editor

The papers in these proceedings were reproduced from originals provided by the authors. The opinions in the papers are the responsibility of the authors, not of the Council for Programs in Technical and Scientific Communication.

Any papers may be reproduced without the permission of the Council for Programs in Technical and Scientific Communication, if the author and the Council are credited appropriately.

These *Proceedings* are published by the Council of Programs in Technical and Scientific Communication at Menomonie, Wisconsin 54751 © 1993.

Contents

Program of the 19th Annual Meeting v

Models for Connecting Academia, Industries, and the Professions 1

Developing a Successful Internship Program 2
Deborah S. Bosley, University of North Carolina at Charlotte

Refiguring Academic-Industry Relations: Technical Communications Research on a Two-Way Street 7
Bob Johnson, Miami University

TC 101: Orientation to Technical Communication, or Bringing Out the Frustrated Teacher in Your Industrial Colleague 14
Jim Corey, New Mexico Tech, read by *Carole Yee*

Designing Capstone and Other Professional-Level Completion Courses for Technical Communication Programs 18
Elizabeth R. Turpin, Ferris State University

Making the Connections Better and Richer 22

Technical Communication and TQM: Teaming Up For Curriculum Improvement 23
Gisela Kutzbach, University of Wisconsin at Madison

Curriculum-Specific Communication Classes for Engineering Students: Providing Context and Connections 29
Betsy M. Aller, Michigan Technological University

Reaching More and Different Audiences and Students 34

Reaching Out to User Communities and Non-Engineering Professions 35
Jennie Dautermann, Miami University

Forging Connections between Academic and Workplace Environments: Scholars-in-Residence 41
Meg Morgan, University of North Carolina at Charlotte

Working Through Conflict 47

The Benefits of the Inherent Conflict between Industry and Technical Communication Programs 48
Anthony Flinn, Eastern Washington University

Working Through Conflict: Tensions in Funded Projects 51
Stephen Bernhardt, New Mexico State University at Las Cruces

Working Through Conflict: Organizing Industry Advisory Groups 61
Henrietta Nickels Shirk, Boise State University

19th Annual Business Meeting 72

Agenda 73

Minutes 74

Financial Report 77

Executive Committee Meetings 78

Minutes 10/8 79

Minutes 10/10 81

Appendices 83

Appendix A: List of Attendees 84

Appendix B: Annual Meetings, Sites, and Dates 88

Appendix C: 1991-1992 CPTSC Officers 89

Appendix D: CPTSC Members List 90

Appendix E: Constitution of the CPTSC 98

Program

19th Annual Meeting
The Council for Programs in Technical and Scientific Communication

Host: Department of English, Boise State University
Location: Boise State University, Boise, Idaho
Date: October 8, 9, and 10, 1992

Meeting Theme:
Academic, Industrial, and Professional Connections:
Broadening The Base

Thursday, October 8, 7:00 p.m.
Reception at the Ramada Inn (Cedars Room)
Meeting packets available
Program exhibits and materials

Friday, October 9
7:45 a.m. Continental Breakfast (BSU Student Union, Farnsworth Room)

8:30 a.m. Greetings and Introductions:
Henrietta Nickels Shirk, Annual Meeting Coordinator, BSU
Carol Martin, Chair, Department of English, BSU
Phillip Eastman, Interim Dean, College of Arts & Sciences
Sam Geonetta, President, CPTSC

Morning Sessions

9:00 a.m. **Models for Connecting Academia, Industries, and the Professions**
- Deborah S. Bosley, University of North Carolina at Charlotte
- Robert R. Johnson, Miami University
- Carole Yee, New Mexico Tech
- Elizabeth R. Turpin, Ferris State University
- Moderator: Mary Coney, University of Washington

10:30 a.m. Break

10:45 a.m. **Making the Connections Better and Richer**

- Gisela Kutzbach, University of Wisconsin at Madison
- Betsy M. Aller, Michigan Technological University
- Mark Haselkorn, University of Washington
- Moderator: Daniel Riordan, University of Wisconsin-Stout

12:00 noon Lunch (on your own)

Afternoon Sessions

2:00 p.m. **Reaching More and Different Audiences and Students**

- Jennie Dautermann, Miami University
- Meg Mogan, University of North Carolina at Charlotte
- Jo Lundy Pevey, Southern College of Technology
- Moderator: Sherry Southard, East Carolina University

3:15 p.m. Break

3:30 p.m. **Working Through Conflict**

- Anthony Flinn, Eastern Washington University
- Stephen Bernhardt, New Mexico State University at Las Cruces
- Henrietta Nickels Shirk, Boise State University
- Moderator: James Zappen, Rensslaer Polytechnic Institute

5:00 p.m. Free Time

7:00 p.m. Banquet (BSU Student Union, Barnwell Room)

Saturday, October 10

Breakfast (on your own)

9:00 a.m. Annual Business Meeting (BSU Student Union, Lookout Room)

12:00 noon Picnic Lunch (Lucky Peak Reservoir and Idaho City)

Models for Connecting Academia, Industries, and the Professions

DEVELOPING A SUCCESSFUL INTERNSHIP PROGRAM
by Deborah S. Bosley

The US Department of Labor states that the number one factor in helping students find full-time employment is an internship. In keeping with the importance of such pre-professional experience, the Department of English at UNCC has offered its majors and minors an internship program for the past ten years; however, in recently we have made significant changes in how students qualify, how the program is administered, how we respond to problems, and how we continue to develop the program.

How Students Quality

Currently, students are eligible for the departmental internship program if they

- have a 2.5/4.0 GPA
- are a junior, senior, or graduate student
- are an English major/minor or a Communications minor
- submit a well-crafted writing sample
- "pass" a qualifying interview with the coordinator

Students are then placed in an internship site where they

- work 8-10 hours per week for 3 hours credit or 16-20 hours per week for 6 hours credit
- receive "training" in the field in which the internship occurs
- meet frequently with their site supervisor for feedback on their work

We have approximately 25 students per semester participating in the internship program.

How the Program is Administered

Although our teaching load generally is three courses per semester, I teach only two courses and count coordinating the internship program as my third course. I receive no renumeration for my work, but rather an evaluated by my interns on the quality of my "teaching" this program.

Our program has gained such a good reputation with the corporate community that I receive two to three calls per week from interested companies. I send such companies a one-page application form and by reading the description of the internship as well as speaking with them, I determine if they are qualified to participate in the program. Companies qualify if they 1) will provide students with a training situation; 2) have a project or series of projects relevant to a student with either writing or communication skills; and 3) do not allow students to be used for clerical work. The US labor laws make it illegal for interns to be used for any job for which someone would ordinarily be hired. Therefore, part of my responsibility is to ensure that interns are gaining a professional experience, not merely being "goofers."

When I interview students for internships, I generally look for three factors: 1) coursework relevant to the internship including technical communication, journalism, public relations, and mass media; 2) professional experience in previous jobs; and/or 3) maturity, commitment, and a willingness to "take control" of their own internship experience.

In order to complete their internship, students keep a daily journal in which they reflect on the experience they are having. At the end of the semester, they turn in that journal, a portfolio of all the writing (or audio/video tapes) they've done for the program, and a final report in which they evaluate the experience. These items coupled with the supervisor's evaluation form the basis for the student's grade.

Students may receive three hours graded credit in English and/or three hours graded credit in Communications. Generally students are limited to six hours of internship experience.

We have over 30 companies listed as internship sites. In fact, I currently have more companies who want interns than I have students who want to be interns. Students are placed at corporations such as IBM, Royal Insurance, and the NBS NewsChannel; at such non-profits as Spirit Square (a local arts agency), Presbyterian Hospital, and the Chamber of Commerce; and at on-campus university units such as WFAE (the university radio station), the Athletic department, and our campus public relations office.

Problems in the Program

First, quality control is always a problem in internship programs. Even though I interview and meet with individual students two to three times during the semester, and I meet or speak with supervisors at least twice, both students and supervisors lie about the quality of their experience. For example, after three interns complained about the quality of their training at a local business (despite the fact that the supervisor told me that "everything was going well"), I had to eliminate the company from my list. Students also tell me that everything's "OK" when I later learn that they were unhappy with their experience _after_ the internship is over.

Second, students come to my office during the last semester of their senior year with _no_ practical, skills-based courses and still expect to find an internship. I am currently working with the Chair of the department to find ways to speak with incoming freshman English majors to help them work on career preparation that includes an internship experience.

Third, I have few places to send students interested in technical communication since that program is still so new few document design companies have registered for interns. I need to do more publicity in this area.

Fourth, I have no operating budget; therefore, the kinds of publicity I can do is severly restricted. I am currently working with the Chair to develop a small budget to run this program.

New Developments in the Internship Program

As we prepare to inaugurate our technical communication minor, these internships have help spur new interest in professional writing students which have, in turn, created more interest in technical communication among students. For the past two years, I have developed a panel discussion on career routes to technical communication. The panelists have included technical writers, technical editors, contract writers, technical communication professors, and students who have been interns. By including internship information, I have been able to disseminate such information to a large audience of students as well as to the corporate people who participate on the panel.

Several of the people interested in teaching (or currently teaching) technical communication have little technical background. In order to give them more credibility and to fill in these gaps, I am currently considering a plan for teachers to participate in internship at various companies by "shadowing" technical writers or becoming part-time employees. Teachers who participate can

- gain professional experience
- learn more about the day-to-day activities of technical writers
- use the corporate worksites as environments for research in technical communication

Coordinating an internship program, despite the headaches and difficulties in such a labor-intensive situation, is fun. It allows me to get into the business community, to make contacts with non-academic professionals, and to learn more about the corporate world. In addition, I know that students who participate in such programs are more employable and, therefore, I am helping them have an experience that will definitely make a difference in their professional and personal lives. Every semester I see students grow in maturity as they develop new skills unavailable to them in traditional, academic situations.

REFIGURING ACADEMIC-INDUSTRY RELATIONS: TECHNICAL COMMUNICATIONS RESEARCH ON A TWO-WAY STREET

by Bob Johnson
Assistant Professor
Miami University (Ohio)

Over the past decade there has been considerable research by academic technical communicators into the nature of nonacademic writing. Much of this research has been conducted as ethnography or case study and the impact of these various studies on our field has been great. We have learned about the writing processes inside industry, the impact of organizational culture on communications, the role that technology plays in corporate communications, etc. In short, this research has contributed so much to our understanding of technical communications that I cannot overstate its importance.

As we continue to explore the many facets of nonacademic communications, however, I suggest that we begin to see our research as having two-way implications. Put another way, much of the above mentioned research into nonacademic settings has brought understandings of industry practices to the academy. I argue that we should accelerate a movement in the opposite direction that will bring academic research back to industry. The result of a concerted effort to move equally in both directions could lead to a refiguring of how academic technical communicators locate themselves in relation to industry, and in relation to the public as well. In this essay, I would like to briefly illustrate my position with two examples: the first an example of research aims and the second an example from a pedagogical perspective. I will conclude with a discussion of how we might refigure the current academic-industry binary from a rhetorical point of view.

First, there is an imbalance of authority in the present one-way situation. While it is vitally important that technical communications programs stay abreast of the realities of industry practices (only a fool would argue otherwise), it is also important that we do not lose the authority of our own voices in the process. I am reminded of a study that was done over a decade ago where business executives were asked to rank what they perceived to be the most important qualities of written communication. The overwhelming choice for first place was correct grammar and spelling. If such evidence is taken by our field to demonstrate what we should pursue in our teaching and research, then we are in grave trouble. While correct usage certainly plays a necessary role, especially in business communication, it has become clear that this role is subordinate to the larger rhetorical concerns of discourse. Much research in composition studies in general, and technical communication in particular over the past several decades suggests that grammar and correctness are relatively small elements of effective communication. We have convincingly demonstrated through our research that more global concerns like audience, textual organization and visual display of information are more crucial to the effective conveyance of the written word than is the "correctness" of the grammatical structure.

This example of correctness is only one example, but it is one that illustrates why we should continue pushing the concerns we believe to be important in the direction of industry with the goal of altering dominant views that are ultimately unproductive to everyone involved. Such efforts on our part would not only be "true to ourselves," but would also benefit industry. Our continued research into areas such as rhetorical theory, usability, organizational structures, and collaboration could have a profound impact on the future of communications in industry. We should not allow the opportunity to affect industry practices pass us by.

Second, we as educators have an ethical obligation to our students to make the workplace an environment that respects the expertise of technical communicators. The power of technical communicators has grown to some extent over the past two decades, and we are obligated to sustain this trend by making what we do in the academy more visible to industry. Much of what we teach our students makes them very important to industry, but I believe that business management must be continually reminded of the importance of their writers, especially with the "value-added" mindset that is now pervading the entire industrial scene. Consider the following project, that my graduate students in technical communications have just completed for a telecommunications client at Miami University, as an example of the need to make technical communicators more visible in the technology development processes of industry.

Recently, the Miami telecommunications department decided to expand its voice mail system by inviting more subscribers to the system. Although the system had been active for several years, there had been what telecommunications felt to be indifference toward the system. In order to expand the market of the system, then, telecommunications has taken two tacks. The first is to make the system available to students who live in dorms on campus. They hope that this audience will see voice mail as a small, but potentially persuasive element of a larger marketing attempt by the university to keep undergraduates in university-supported housing. The second tack is to make the faculty and staff more aware of the system and its many capabilities (e.g., multiple message sending, out-of-town access to your mail).

As part of this campaign to build usership of the system, telecommunications enlisted me and the students in my graduate technical writing seminar to improve the documents that accompanied the system. To begin, we conducted user analyses of the potential user groups (student, staff and faculty). These analyses consisted of interviews, questionnaires, and observations of novice and experienced users of the system. From these analyses we found that the existing documents were unusable in a number of respects (and thus we would try to correct these deficiencies in revised documents), but we also discovered a number of "glitches" in the system that the user documentation could not adequately address. Hence, we kept note of these system problems for the purpose of bringing them to the attention of the systems developers or managers.

Even though we had found a number of system errors, we were aware that our "discoveries" would not turn the heads of the developers or managers and convince them to change the design of the system. We have, however, presented (along with the revised user documents) our opinions about making system changes to both the telecommunications department, and the company that designed the system in the hope that some consideration will be given to what could be possible improvements of their system.

What was interesting about this project was not necessarily the uncovering of the system errors or the communicating of these conclusions to somewhat unconcerned developers (everyone knows that systems have errors and that systems developers are notorious for ignoring changes to systems that they consider "golden"). Instead, what I found interesting were class discussions about the role of technical communicators in technological systems development.

The students had sensed the indifference by the developers to the critique of the system. The developers and managers, of course, loved the revised user documents: these manuals and quick reference cards were far beyond any of the developer's expectations. But the students really wanted to know how they could use their user analysis of the system and/or the user documents they created as persuasive tools for talking to the developers. In other words, they wanted to discuss how to develop techniques for convincing management that they -- technical communicators -- are as integral to systems design as the designers themselves. That they are, indeed, developers, too.

We discussed some possible answers to this problem in the class. For instance, we talked about setting up a usability study to track the revised user documents over the next year to see if these documents actually helped user perceptions of the system, or maybe even encouraged greater use of the system. We also speculated on techniques for building relationships between developers and writers in actual industry settings. One student suggested that technical communicators could meet with developers during selected stages of a project in order to give a communicator's point of view to the development process. At first, this student speculated, the point of these meetings would not be to influence product design or development, but would be merely to show developers how technical communicators can provide insights about design that developers often overlook (e.g., user friendliness). Later, these meetings could become more substantive and possibly lead to involvement by communicators in the development process. The technical communicators, then, would be working slowly, persuasively into the development process and thus building credibility. (I realize that such musing could be seen as "pie in the sky" in the actual workplace, but several of my students have significant experience in the trenches already and these students were the most vehement advocates for building developer/communicator relationships. In addition, some companies -- like Microsoft and NCR -- already do conduct studies and meetings like those that the students suggested).

As I conclude my discussion of the academic-industry connection, I would like to take a moment to acknowledge and, in turn, problematize the dichotomy of this two-way binary. The above examples do illustrate the need for academic technical communicators to redirect some of our energies back toward industry, and for industry to pay heed to our voices. The impression that this dichotomy gives, though, is that there are only two voices "on the street." There is a third voice on the street that enriches and resituates the academic-industry connection: the public voice. This often muffled voice was clearly heard in the recent ACM CHI '92 (Association for Computing Machinery Computer-Human Interaction) conference held in Monterey, California. The conference had followed literally on the heels of the L.A. riots, and concerns about the riots spurred a special, spontaneous morning session dedicated to discussing social problems and what computing professional can do to help solve these problems. In the SIGCHI (Special Interest Group in Computer-Human Interaction) Bulletin that followed in July, Ben Schneiderman articulated the sentiments expressed at this session in the following way:

> I believe that computer professionals working in cooperation with others can make the future better: enabling teachers to help children learn, supporting doctors and nurses in providing better medical care, providing community groups with the tools to organize, and assisting individuals in their business or personal initiatives. 'Computer Power to the People' is a phrase reminiscent of the 1960's, but it can become the theme for the year 2000 and beyond. (p.17)

As I am suggesting, and as Schneiderman helps illustrate, there are really three voices (and of course many voices within these three overall categories) on the two-way street. This additional voice refigures the academic-industry binary into a triangle -- a rhetorical triangle of three interconnected voices. And as the rhetorical triangle metaphor so simply but clearly demonstrates, the three points are interconnected so tightly that no one point (voice) can "speak" without the other two points (voices) being affected, or influenced, or in some way changed.

The refiguring of the binary into the triangle presents a strategy for technical communicators to encourage interaction among the "people in the street." The triangle, as a rhetorical construct, provides us with a heuristic: a tool to communicate the value and potential of an interconnected communication system between the three participants. On one level, the heuristic is simply a metaphor to aid in the translation or representation of the problem. On another (and possibly more subtle) level, the metaphor of the triangle breaks down the hiearchy of power – at least conceptually. Our role then becomes activating the refigured construct for practical purposes, or, more succinctly, turning the theoretical construct into practical action.

The voices on the street are all interconnected, but we each have our own power, voice, expertise. In other words, we all have something to offer and something to bring back with us. As technical communicators, I think, we have been "bringing" for too long, and now we need to offer – both for ourselves and the others who make up the network of the street. How we do this and when we do this is up to us. If we do it is not an option.

Works Cited

Schneiderman, B. (1992). *Socially responsible computing II: First steps on the path to positive contributions.* SIGCHI Bulletin, 24, 3.

TC 101: Orientation to Technical Communication, or Bringing Out the Frustrated Teacher in Your Industrial Colleague

Dr. Jim Corey
Professor of English
New Mexico Tech
Socorro, NM 87801

When we first introduced TC 101, Orientation to Technical Communication, we designed it as a class to help students decide whether or not to major in technical communication (TC). Featuring guest lectures by technical communicators, the course is a vehicle by which the students come into contact with the professional workplace. Not all students like what they see; a few choose not to major in technical communication. But most get a favorable view and opt for a TC degree. Thus, the primary goal of the course is met to our satisfaction.

However, we soon found that TC 101 provides a bonus we hadn't expected: it has proved to be very popular with the lecturers. Not only do we have no trouble in recruiting guest speakers, we often have them calling us to request a place on the roster of speakers. Some of these people come from as far away as Texas and California; all pay their own expenses; and all seem to feel honored and rewarded by having the opportunity to speak.

Thus, in addition to our contacts through our Corporate

Advisory Board, our Internship Program, and our Student Chapter of the Society for Technical Communication, TC 101 has become a fourth important point of contact between our program and the industrial/professional world.

In fact, TC 101 interacts in many ways with other facets of our industrial connections. For example, Dr. Dan Plung of Westinghouse, one of our Corporate Board members, came to us first as a speaker in TC 101. In his corporate capacity as manager of a documentation group, he became a prime recruiter of our students as interns and employees. Now once each year he comes from his office in South Carolina for our Board meeting. And he continues to be a willing speaker in TC 101.

TC 101 also serves as a device for getting program information to our new students. For example it is a forum for our senior students to report on their internships. Thus the new students learn from the experiences of the older students, and the older students practice their oral communication skills by addressing the class. It is also a forum for TC faculty to discuss the history of TC and of our program, or to review their research, and for the program director to present information on the curriculum.

But the greatest gains we get from TC 101 are the knowledge and wisdom imparted by the "average" technical communicator. Most of our guest speakers are not from upper- or mid-management in corporations, as are, for example, those professionals on our Corporate Board. The typical TC 101 speaker is someone doing the day-to-day work of technical communication: writing, editing, designing, and producing documents. Invariably we find that these people have unique perspectives on the profession, lots of insights and perceptions to share, and practical advice to give.

At the same time that these speakers are discussing the profession, they also physically represent the profession in their demeanor and dress. After one young alumna created a favorable impression of herself and of technical communication as a career, she was surprised when one of our first-year students stopped her after class and said, "I want a life exactly like yours!" By contrast, after another speaker discussed the stress of trying to meet impossible deadlines, another first-year student opted to change majors, unwilling to face "forty years of frustration and fatigue."

And finally, TC 101 sometimes prompts us to take a look at what we are doing in our program. For instance, one recent speaker discussed her career as a contract writer in Austin, Texas. She remarked that in her capacity as manager of the STC Job Bank in the Austin market, she was noticing a decline in "regular employee" positions for technical communicators and an increase in "limited term" contractor positions. Her remark fell upon the alert ears of one of our faculty members who is manager of the STC Job Bank in the Albuquerque market. He too had noticed this employment shift. Their subsequent discussion of this phenomenon has prompted a debate within our program about its possible consequences for our curriculum: do we need to prepare our students differently for a profession that might in the future employ more freelance communicators than permanent employee communicators?

A possible future permutation of TC 101 might be to make it even more a source of information on the changing conditions of the profession. As with the "contractor vs regular employee" debate cited above, technical communicators in New Mexico are now awaiting nervously the imminent changes in defense spending, for many of the technical communication jobs in our market area are tied to the defense budget and to weapons research. Such operations as Los Alamos and Sandia National Laboratories and the White Sands Missile Range employ large numbers of technical communicators themselves, and they provide spin-off projects for hundreds of smaller firms that also employ technical communicators. Keeping up with the rapidly changing employment scene will not be easy for us who are locked in our Ivory Tower. Among other methods for keeping track of the professional market place, TC 101 may prove to be one of the best.

TC 101 has proved to be a remarkably fuel-efficient vehicle: we put only one credit into it, but the mileage we get from it reaches our students, faculty, and program in positive ways and extends into the corporate world for the mutual benefit of academe and industry.

Designing Capstone and Other Professional-Level Completion Courses for Technical Communication Programs

Elizabeth R. Turpin
Professor of Technical Communication
Ferris State University

Technical Communication programs have often been developed by faculty in response to curriculum needs or expressed student interests when there also existed specific employment opportunities in business and industry for the graduates of such programs. A major question that has come up in evaluating various technical communication programs is what focus or what parameters programs should choose. Another question concerns how the base for programs that have developed out of various needs or interests--and sometimes related to the particular needs of an employment environment--can be broadened to encompass some common program goals.

One means for providing added cohesiveness to any given program and for also achieving what might become a common goal for all programs is the development of a capstone or completion-type advanced course that would synthesize the main skills and concepts learned in the course of a major in Technical Communication. Such a course can relate what the student has learned throughout the program to the application of that body of knowledge and skills in a flexible and professional manner. Taking the students through essential elements of communication management and providing them with the responsibilities for achieving an end product--including a collaborative project (designed and carried out by groups of 8-10 students--can provide them with a kind of overall maturation, flexibility, and professional viewpoint not achieved ordinarily in any other single course.

The course should be taken as a senior course at the end of the program and could thus presume prior skills in basic required courses offered in the program, plus some areas of specialization chosen by the individual students. The variety in focus achieved by different students can be put to good use in the structuring of the collaborative project. The student groups should choose their own project, select their project leader and communication officer, develop schedules, and assign necessary research, writing, editing, typesetting, proofing, document design, and other activities to produce an effective document.

This approach is one I have developed over a number of years and have incorporated it into the Technical and Professional Communication program at Ferris State University. I have been able to develop a successful senior completion-type course that allows students with a variety of interests to maximize their individual talents within a collaborative teamwork project over a 10-week quarter. In the classroom, we apply major concepts of management and technical communication skills, project development, and desktop publishing of the final product. Students pursue the goal of an applied use of their publication by an outside group, organization, or company. Integral to the classroom work is getting students to review basic skills while also participating in a variety of judgment calls in common, daily on-the-job types of technical communication and interpersonal problems.

A question I frequently pose concerning publication examples I present from live sources is, "Would you sign off on this document?" Or, "How would you handle working with a writer who turned in this copy?" Or, "How much time would you spend on this copy? What would you do to improve it?" Or, "How would you develop yourself and/or your staff to higher skill levels?" In this immediacy context, I try to cover as many as possible of the kinds of responsibilities and problems a student may encounter as a professional on the job. Students who go into a job understanding some of a technical communication manager's problems can be more effective employees, and they seem to orient to their job responsibilities sooner.

Over the past fifteen years at various institutions, during which I have tracked the professional development of technical communication graduates from various colleges where I have taught, the students who have been the most successful have been those who have understood how to be flexible, how to recognize the particular responsibilities that technical communicators have to make communication work, and how to be contributing team members--not just follow instructions blindly. I have found that those graduates who have had particularly effective internships that reinforced a synthesis of their skills and concepts and/or who have had a successful capstone or completion-type course have risen much more quickly to positions of responsibility and have been able to work at positions in which they were able to grow and advance.

The primary value of a capstone or completion-type course is providing technical communication students with a kind of seminar course that challenges them to integrate their prior course work. It enables them to apply their rhetorical skills, to focus their career goals, and to mature into a more professional point of view. Equipping students with these capabilities can enable them to more successfully cross the bridge from the college classroom to the professional world of work.

Making the Connections Better and Richer

Technical Communication and TQM: Teaming up for curriculum improvement

Gisela Kutzbach
Adjunct Assistant Professor
Department of Engineering Professional Development
University of Wisconsin-Madison

In recent years, the University of Wisconsin-Madison has worked on adapting the concepts of quality improvement to the needs of those it serves. The goal of this effort is to continuously improve the way the university carries out its mission: to create, integrate, transmit and apply knowledge. This effort cuts across traditional boundaries within the university culture. It has strong support in the College of Engineering and the Business School, with administrators, faculty, staff and students working together on a variety of quality teams.

Our technical communication staff believes that communication can make an important contribution in this improvement process. Like the TQM concepts, technical communication cuts vertically through the curriculum and is important for the transmission of knowledge through classroom presentations. Thus, implementing effective communication strategies both into the curriculum and into the teaching process can contribute to the improvement of engineering and business courses. Realizing this as an opportunity for our technical communication program, we are in the process of broadening the base of our program by linking it to the cycle of the TQM improvement process.

Communication as part of quality improvement efforts

So far, our efforts in the TQM process have provided a focus and motivation to improve our own program and to collaborate with other campus units rather than to compete with them. Our TQM-related activities have not only increased the visibility of our program but also have yielded three tangible results:

(1) Following the seven-step TQM approach in our program, we have begun to define our identity, formulate a mission statement, develop a vision, uncover problems and gaps, and develop strategies and priorities for reaching our visions. While we started out as a groups of academic skeptics, considering TQM as just another fad in the changing scene of management techniques, we found that applying of the quality techniques is fostering the team spirit and enthusiasm to work toward a common goal.

(2) Our staff members are expanding activities beyond the teaching in our service-oriented program. A member of our staff participated in the TQM University Challenge in 1992, when the 100-member university team was selected to attend a week-long training session at Proctor & Gamble. In addition, technical communication staff participated in the IBM TQM University Competition for a five-year award to accelerate teaching, use, and research of quality management principles, a joint venture of the School of Business, the College of Engineering, Office for Quality Improvement in the Chancellor's office, and the Center for Quality and Productivity Improvement. The award includes a partnership with the IBM plant in Rochester, Minnesota, initial funding for a Technical Communication Laboratory, and salary support.

(3) Staff members have been appointed to provide leadership in college-wide teaching improvement, and to serve on committees in curriculum development and strategic planning.

Integration across the curricula

The IBM Partnership Award specifically provides funds for the development of three curriculum modules in technical communication, in addition to a large number of TQM related modules in business and engineering. The three communication modules are important in the university's TQM effort for two reasons: (1) Communication modules will serve as a pilot program for applying TQM principles to the process of developing the curricular modules. (2) Communication modules will serve as vehicle to improve other engineering and business courses by an integration process that makes it possible to plug in curricular material where needed.

The technical communication modules are part of a college-wide initiative to develop curricular modules for a range of subjects and to radically change the engineering curriculum. The goal is to make it possible for instructors and students alike to customize their teaching and curriculum by choosing and sequencing curricular modules according to their needs. Customizing courses, it is hoped, will reduce or at least keep in check the bulging credit requirements for engineering students. Moving toward a modular curriculum will make it easier for students and instructors to avoid irrelevant or outdated material. It should also make it possible to retain or even strengthen the technical communication component in the engineering curriculum while shortening the time students need to complete their engineering degrees.

The technical communication modules will provide teaching and student materials for clearly defined units, ranging from one hour of teaching time to several weeks, and will include lecture notes, handouts, examples, overheads, homework problems, videos, and interactive multimedia versions. The three areas targeted are basic engineering writing, technical graphics, and oral presentations. These areas are particularly suitable to modular integration into the curriculum because concepts like audience analysis, or customer focus in the TQM language, should be integrated into all courses. Other engineering courses require task-specific instruction in communication, such guidelines and strategies for writing and presenting proposals and reports, or for developing information graphics.

Communication in the classroom

Another and more sensitive activity as part of the TQM effort of the college is working with faculty and teaching staff as the customers for technical communication knowledge. Just as the nursing staff in a hospital would benefit from training in technical communication when writing procedures and dealing with patients, so the faculty at the university could benefit from technical communication strategies. While "challenging the mind is the main business of the university," to quote the Dean of the College of Engineering, instructors also need to be experts not only in *what* they teach but also in *how* they teach. The technical communication program is providing leadership for the college's TQM team on improving instruction. A potential benefit of this effort is that increasing teaching effectiveness could also increase job satisfaction of the teaching staff. Successful teaching assistant workshops are already in place. Work with faculty is in the planning stages and will begin slowly, with faculty that are receptive to TQM concepts. Successes of these faculty members, it is projected, will draw more reluctant or skeptical faculty into the program. First initiatives focus on the experiment of Ian Hau in introducing the seven tools of TQM into the classroom-teaching improvement process.

Communication modules

The technical communication staff's plan to apply TQM concepts to the development of the communication modules is based on Deming's 14-point approach. To develop the content, structure, and form of the modules, we will work with a project team consisting of faculty, students, and business consultants. Specifically, we will adapt the PDCA (Plan-Do-Check-Act) cycle to the university and its culture and use the following seven-step procedure:

Plan the module

Step 1: Review the theme. The project team will (a) determine the likes and dislikes of customers, both teaching staff and students, through interviews and focus groups and (b) identify measures of progress for evaluation in the later phases of the PDCA cycle.

Step 2: Observe the current situation. As part of the module design process, the project team will visit departments and curriculum committees; identify what communication skills the faculty builds into the courses; and develop process flow charts for the introduction and use of communication skills in the engineering curriculum.

Step 3: Analyze root causes. The project team will analyze root causes that affect the quality of written, oral, and graphic communication, both from the instructor's and the student's perspective. This process will involve statistical evaluation of Step 2 and graphic analysis through cause/effect diagramming.

Do the module

Step 4: Develop the three communication modules. Relevant content for all modules will be established from current research and literature, communication courses, evaluation of the PLAN phase, and consideration of learning styles. Further, appropriate and consistent formats will be developed for a variety of media, including print, video, and multi-media. Clearly defined, modular formats within the modules will ensure built-in flexibility and easy updating. Technical support for this work will be through the Technical Communication Laboratory, in collaboration with Media Production and Publications.

Check the modules

Step 5: Test the modules: The College will implement the three communication modules on a small-scale basis; the project team will identify the changes that occurred as a result of the modules and compare these with the baseline data established in Step 2; after this initial testing, we will upgrade the modules and establish control methods.

Act on the modules

Step 6: Set up a creative process. Implementation on a full scale will require standardizing the use of modules by faculty, faculty governance approval where needed and methods for distribution.

Step 7: Conclude the project: Adequate support and standardizing will empower the faculty to use the modules and continually improve the quality of the modules.

In the PDCA cycle just described, Step 7 implies that continuous improvement of the modules and review of their usefulness will become an on-going process.

Conclusion

Our Technical communication staff is broadening its base by taking an active part in the university's commitment to adapting TQM methods to the university culture. The development of curricular communication modules will help us identify and respond to the needs of our customers, assess and act on our own strengths and opportunities for improvement, and help introduce radical changes in the engineering and business curriculum. These changes involve the improvement of the curriculum development process to make it customer-focused and improvement-oriented.

Works cited

Hau, Ian. "Teaching Quality Improvement by Quality Improvement in Teaching." *Report Series in Quality and Productivity,* Report No. 59 (1991). Center for Quality and Productivity Improvement (Madison, Wisconsin).

Scholtes, Peter. R. *The Team Handbook.* Madison: Joiner Associates, Inc. 1988.

Curriculum-specific Communication Classes for Engineering Students: Providing Context and Connections

Betsy M. Aller
Coordinator, Chemical Engineering Communication Program
Michigan Technological University

One of the objectives of this conference is to examine the connections between industry and the academic community, and to investigate how these connections influence our teaching. Like many of you, I harbor some concerns about the influence of industry values on our teaching. But I am also optimistic about some of the changes we may be seeing in those values. One of the things we know about industry is that technological conclusions and decisions in industry are almost always influenced by extraneous factors--by environment, by context. In the humanities, we have long realized the inadequacy of teaching subjects isolated from their contexts. We are beginning to see evidence that those in industry and, by extension, those in engineering education are now reaching the same conclusion. For example, within engineering education, there seems to be a trend toward looking at phenomena more broadly, in terms of their contexts and interactions. This emphasis on context is vital if we are to teach future engineers to be concerned with the human consequences of science. And in this emphasis on context we can perhaps see some ways to bridge the real or perceived gaps between humanities and engineering education.

If we want our future engineers to consider not only the technological outcomes of their actions, but the human ones as well, we need to provide our students a more richly contextual setting for learning, among other things, communication skills. Yet too often our technical communication teaching takes place in generic, non-contextual settings, where students find it difficult to see the connection between the communication skills they are taught in school and the human consequences of their writing in their own particular professional settings.

One way for educators to help engineering students make the connections between communication and their own future professions is to offer discipline-specific, rather than campus-wide, technical communication courses. The best of these courses result from collaboration between humanities and engineering faculty, pulling together expertise from both worlds. Typically, the humanities faculty teach the courses with advice and input from engineering faculty. In some cases, faculty co-teach the course. Done well, such courses can provide authentic communication practice within the framework of students' own discipline, thus allowing them to see the real significance of their professional writing and speaking.

There are several advantages of discipline-specific technical communication programs. (It would be naive to think that there are not also some real or potential disadvantages to such programs, and I am not implying that they don't exist simply because I don't discuss them today.) Today I'd like to talk to you about a successful, discipline-specific communication program, now in its sixth year in Michigan Tech's Department of Chemical Engineering. I'll first talk about how such a program can help students learn communication skills in a richly contextual environment providing increased interest and motivation as well as genuine practice. I'd also like to discuss the ways in which such a program can be a joy to administer and teach. Finally, I'll describe the collaboration that takes place between humanities and engineering faculty.

Benefits for Students

From a student perspective, there are several important advantages of a discipline-specific communication course. First, such courses can offer more interesting and relevant assignments. In the campus-wide technical writing class taught at our university, students are often assigned fairly generic writing tasks--writing software documentation or proposing a new parking deck on campus are typical examples. While these may teach students the importance of precision and the ability to persuade, students often think of such writing as a "no-frills approach to creative writing," failing to see a connection between writing and their own future professions. But in discipline-specific courses, we can tailor assignments to students' future profession, often through realistic scenarios. For example, acting as newly-hired process engineers, our students write group reports that analyze friction loss data for valves in pilot plants and provide specific recommendations to management on the usefulness and validity of these data. The assignment builds on specific technical knowledge they've already gained and closely mimics the sort of document many, if not most, of them will be expected to produce in industry. Because they see the relevance of such an assignment, students are more motivated to succeed, viewing writing for the class as "real," rather than "creative" writing.

Students can also benefit from having discipline-specific visitors to the classroom. Department faculty, visiting industry officials, alumni, and even co-op students bring tales of "the real world" and the communication tasks required "out there." Because these visitors are talking specifically about the students' future professions, students are motivated and interested. Such visits may also help build networking connections for students seeking employment.

Teaching/Administering Benefits

From a teaching perspective, discipline-specific communication courses can be a joy to teach and administer. Because students usually already know each other, that breaking-in period of shyness is minimized or eliminated; students start working together more readily. If, as in this case, the instructor is situated within that department, students come to see the instructor as one of their own and as an available resource, rather than "some humanities teacher" across campus. They are thus more likely to come for help or to talk about issues of concern to that particular curriculum. And because such courses may figure into students' departmental grade point averages, motivation for good grades is heightened. (This may be a mixed blessing for those who hope to convey that grades are not the ultimate measure of success.) Finally, in lean times, budgets may be less restrictive for those teaching in engineering departments than for their humanities counterparts. Access to copying, supplies, computers, etc. can remove a large burden from the shoulders of those administering or teaching communication courses.

An equal (or greater) benefit of teaching curriculum-specific communication courses is the opportunity to raise ethical or political issues of concern to that particular profession. For example, one segment of our program focuses on how chemical engineers must communicate about the risks associated with the chemical process industries. Students (still in their roles as process engineers) start by responding to a letter from a local citizen concerned about the potential hazards connected with the students' chemical production plants. They then write an update to their local emergency planning commission, as mandated by right-to-know laws, on a hazardous chemical used or manufactured by their plant. Throughout this segment, students hold lively discussions on the sometimes conflicting responsibilities they may have toward their company, toward their profession, toward the human community, and toward the environment.

Opportunities for Collaboration

Finally, one of the greatest benefits I've found of administering and/or teaching a discipline-specific communication program is the opportunity to collaborate with engineering faculty. We often have a perception of engineers as uninterested, or even antagonistic, toward the humanities and composition pedagogy. This may indeed be the case in some engineering departments or among some individual engineering faculty. More often, though, these faculty see a strong need to improve their students' communication skills and welcome the opportunity to work with humanities people to learn how it might be accomplished. In my department, virtually every faculty member is supportive of my work.

One senior faculty member, Davis Hubbard (himself an excellent writer), teaches a section of the technical writing class every spring. His method of teaching indicates his willingness to learn about composition pedagogy: he sits in on my classes, takes copious notes, and models his lectures after mine. (This despite the fact that most of what I know about report writing I have learned from him!) He and I continue to update the case study on friction loss I mentioned earlier, and he plays an active role in lending his technical expertise to the project. Within our scenario, the students are replacing a project engineer named "Jack Davis," taking over his project and reporting on his experimentation. Acting as Jack Davis, Hubbard returns to the company for one day to respond to the new engineers' technical questions about the project. This visit provides the technical details outside my area of expertise while furthering a rich contextual setting for students' writing.

Our collaboration works to enhance the engineering curriculum as well. I now sit in on the capstone plant design course required of seniors, and I and another humanities graduate student collaborate with the two engineering faculty to lecture on report writing, collaboration and group dynamics, graphic design, and oral presentation strategies. During the 48 hours before a major report due date, I hold open office hours to coach these students on their report writing. This collaboration further helps students to see communication within the context of their own immediate curriculum, rather than as separate from it.

Finally, this collaboration between humanities and engineering faculty provides students with a role model of diverse knowledge and cultures working together, a model we believe will serve them well in industry. And such a collaborative approach helps us to broaden our own approaches to communication while allowing us to bridge gaps and foster the conversations beneficial to us all.

Reaching More and Different Audiences and Students

Reaching out to User Communities and Non-Engineering Professions

By Jennie Dautermann
Miami University

In a world where almost every professional has a computer at her/his desk and where even industrial production is increasingly regulated by computers, technical and scientific communication can no longer be thought of as an ancillary field of engineering and science. The field of technical and scientific communication must take account of fields where service professionals, and business people both create and consume technical materials as an integral part of their work. As the field of computer documentation has shown us the importance of "users", it is time for our programs to take into account the needs of many other "user-professions" where primary exposure to technology may first relate to using new devices to solve old problems. Eventually, such technology users often become technical communicators in their own right as they become involved in transfer of "user" expertise to their own professional communities.

User-Professionals are Technical Communicators

My own interest in this area comes from my observations of hospital nurses who see technological advances confounding their profession in a significant way. Only a few hospital nurses are innovators of new technology or medical researchers in their own right, but all nurses must understand the documents that accompany complex instruments and machines, invent ways to accommodate new devices to local conditions, and create written procedures to standardize application of new technologies in their own departments.

Conditions such as this exist in many fields beyond medicine. When we consider, for instance, the complexity of the modern automobile repair shop, the modern office, or the small manufacturer with their banks of data, telecommunications facilities, and other complicated equipment, it becomes apparent that the need for articulate professionals who can deal with complex technical information extends well beyond the laboratory and the engineering firm.

The sort of disciplines which might require user-professionals to act as technical communicators might include any field where new practices or equipment create the need for:

- writing local procedural instructions
- writing local policy manuals
- teaching staff or colleagues to use new equipment
- automating production processes
- developing or installing new computer systems
- adapting standard technical information for local conditions.

My point here is that there are multitudes of mid-level technical professions where use of technology rather than its development may be their organization's focus, but where communication of technique is essential their work. Most of the technical communication in these disciplines is carried out by professionals-who-write rather than by professional communicators. Of course technical communication classrooms have often used context specific situations like those listed above as examples and cases for student assignments, but I contend that those cases are generally considered pedagogical necessities arising from the diversity of our students' backgrounds rather than being seen as an important element of the field.

If we consider broadening the base of technical communication programs, we need to think about the consequences systematically inviting such professionals into our constituency as well as into our classrooms. How should we reach out to students who will not become engineers, or scientists but rather policy makers, mid level technicians, and production managers? Can we afford to extend our energy in such ways? Is the service course our only option? Or should we think more deeply about how to address the needs of such communicators in concrete ways?

Adjustments that might be needed

Let's assume for the moment that our meeting topic implies that we all want to broaden our mission to include serving the professional-who-writes as much as we are able. Here are some adjustments that might be needed in our own thinking:

Broadening the types of environments we investigate in our research. We might need to investigate technical communication in hospitals, auto repair shops, government service offices, non-profit groups, production laboratories, or publishing companies as well as engineering and computer firms. We may also need to rethink our approach to studies that investigate engineers or scientists who are "professionals who write" and not "professional communicators" in order to consider the effects of taking such subjects as models.

Spending time exploring rhetorical issues and working to understanding the persuasive nature of ALL communication.

Becoming technology advocates in our own workplaces by introducing colleagues to electronic mail, advising local computer center staff on document development, seeing our own work environment as a site for technological change.

Keeping touch with our interns and alumni working in user-professions by listening to the students who go to work in manufacturing plants, small businesses, and the zoo as well as those who work in engineering and computer environments.

Issues to consider

In serving the professional-who-writes, we might need to communicate our intent to faculties of departments not traditionally served by our service courses. Such a process might require that we consider the following issues:

We might question our current identification with English Departments. It might be necessary, to reduce (as the program at Washington did) our identification with the English department with its associations with letters and reports in order to open our service courses to other communication genres that may be required of the user-professional. Of course, we may want to preserve that relationship for many other reasons.

Include new disciplines as client departments. Certainly as we become more aware of the technical communication needs of students in nursing, architecture, food service, athletics, and other areas it becomes possible and necessary to find places for them in our curricula. We also would need to communicate that awareness to the departments from which they come.

Changes to consider

Then also we might need to consider thinking through the content of our technical communication courses and the textbooks we use. We might need to consider the following sorts of changes:

Finding appropriate genres to teach to students who will not be professional communicators but members of user-professions. We might also find ways to help such students see communication problems as the motive for documents rather than making specific types of texts the center of our courses. *Putting some emphasis on reading and/or interpreting technical documents* as well as on producing them. User-professionals who adapt complex information for local use may be as ill equipped to read source materials as they are to produce usable texts.

Including management issues in technical communication courses populated by future policy and procedure writers. Acknowledging user-professions as cognates by using more examples from them in our textbooks, assignments, and discussions.

Addressing issues of bias that may exist in user-professions in relation to the role of communicator. Discussing, for instance, the role of "staff support" (one current euphemism for secretary).

Discussing the social consequences of technology access. Whether a user-professional's involvement with technology is willing or forced, there are certain assumptions being made about his or her ability to understand and cope with new practices. We and our students might need to begin thinking about what it means to be denied technical information or equipment in a world where technical skills are often highly related to economic success.

Conclusion

If broadening the field is an appropriate goal, then it is my opinion that any such movement should be directed at a more democratic and less positivistic approach to our association with science and engineering. Even though such a path could lead to a devaluing of our programs in certain types of schools, it could also broaden the ways we think about the user-professional who may be a technical communicator by default. Whether or not we recruit them, some students preparing for positions in the user-professions have already begun to come to us. In a society where technological change invades almost every area of endeavor, our responsibility to open our doors to these students may be growing. Perhaps we should consider ways our current programs may be keeping those doors closed.

Forging Connections between Academic and Workplace Environments:

Scholars-in-Residence

Meg Morgan, Ph.D.
Assistant Professor of English
University of North Carolina at Charlotte

There are many ways that connections can be forged between people and programs in academic and workplace environments. During the summer of 1990, Deborah Bosley and I became Scholars-in-Residence in the Information Development department at IBM-Charlotte. I would like to give some details how this happened, what we did as Scholars-in-Residence, and some of the things we learned from our experience.

Initiating Experience

For several years, IBM-Charlotte and UNC-Charlotte had participated in employee exchanges where IBM'ers would visit the campus as observers and adjunct faculty and UNC-Charlotte faculty would become Scholars-in-Residence at the IBM Charlotte site. Consequently, our request to spend time at IBM was met with no surprise or resistance, but rather with enthusiasm and delight on the part of IBM Information Development staff, the UNC-Charlotte Continuing Education representative who acted as liaison between corporations and academia, and English Department administration.

All arrangements were negotiated through Continuing Education: we agreed to a contract between UNC-Charlotte and IBM that detailed our job responsibilities and duties, our salaries, and other personnel details. We remained employees of the University but IBM paid the University for our services. We negotiated such things as salary, dates of employment, and, to a lesser extent, duties and responsibilities.

Purpose of Our Residency

Our residency had four purposes:

- to conduct research on writing with a special emphasis on team writing
- to observe the systemic processes of Information Development and its relationship to other departments at IBM with which it interacted
- to design our program in Technical Communication by watching how writers worked in a corporate setting
- to work as employees

For each of these purposes, we were able to make recommendations to IBM at the end of our residency, which we did in a detailed report. Let me describe some of our recommendations.

First, we recommended that IBM change the way it structures writers' assignments within projects. At IBM-Charlotte, technical writers were assigned particular documents on a project. For example, one writer might be assigned an operator's manual while another might be assigned a reference book. Instead of a writer being responsible for a particular book in a project library, we recommended that the writers on a project become experts in a particular content area that might cut across books. In this way, the writers could become experts in a particular area. In addition, we felt that this "horizontal" organizing pattern would discourage errors or discrepancies within sections between documents. We also felt such a pattern would encourage communication among writers on a project.

Second, writers were often brought onto a project after most of the software design issues had been decided. This often resulted in writers having to play catch-up on a project. Sometimes they felt left out of the decision-making process because they were not there when the initial decisions were made. From our experience working with other groups, including student groups, we know that those who enter a group late often feel like and are treated like outsiders. We recommended that writers be included at the beginning of the project rather than being added after initial design decisions were made.

Third, although each manual undergoes a rigorous review from within, IBM did not test its manuals on real users. As teachers who often have to deal with the anxiety of new computer users, as well as learners in the IBM environments who had to learn much of the system from manuals, we were particularly sensitive to the needs of users.

Consequently, we recommended that IBM begin a systematic policy of using real users to test manuals before they go into final production.

We began our work at IBM at the very beginning of planning our Technical Communication program. At IBM, we learned much about the kind of program we wanted at UNC-Charlotte. For example, it became very clear that a good technical communicator must know something about how users "read" a document--that, in fact, they don't really read, but use it. We realized first hand that our students must know something about reading theory as well as something about writing theory. Consequently, our Technical Communication program includes a course in theory. However, it also became clear that, in a computer environment, a valuable technical communicator should know more than just how to use a computer but should also understand hardware and software. We require our students to use computers throughout their program and to have familiarity with concepts in either a technical or scientific field beyond technical communication.

At IBM we were not brought in as consultants who would make recommendations, but rather as workers. As workers, we learned a lot about computers and their role in technical writing. We learned about and experienced the day-to-day activities of technical writers and some of the pressures they experience. In addition, we presented two seminars: one in-house and the other a still-video conference for 10 IBM sites in the US and Europe. In addition, Deborah edited video scripts, I wrote a short manual for a banking program, and we both edited manuals and proposals. However, we would have liked to do more and recommended that the next scholars-in-residence do more writing.

Unexpected Insights and Developments

Our residency also resulted in some unexpected insights and developments. First, we were unprepared for many aspects of the corporate culture at IBM which contrasted sharply with university culture. For example, security was very tight. There were many documents we could not work on because they were classified; there were conversations we could not participate in because the content was about programs in development. We wore ID badges with our pictures and without them, we could neither get into buildings nor walk the halls.

In addition, the corporate lifestyle was much more formal than any we had been exposed to in academia. Unlike at the university where I seem to work all the time--in the evenings, late into the night, on the weekends--at IBM the time was blessedly constrained. Although it was monitored carefully and accounted for weekly, we came in at a particular time and eight hours or so later we left. Constraints also carried over to clothing. While I seldom worry about or even think about a university clothing style, at IBM women employees wore dresses, suits with skirts, or skirts and blouses. Men wore suits, ties, or slacks and sports jackets. (Today employees are allowed to be more casual, with women often wearing jeans or slacks to work daily.)

We were also unprepared for the roles we played for the ID employees. After several weeks, we became advocates for them, voicing their concerns in ways they could not or would not do. Although we were there to learn about the nuts and bolts of technical writing, employees sought us out for "theory." They didn't necessarily call it that, but many were interested in what we had to say about usability, or readability, or authority, for example. After several weeks, they forgot that we were "professors" but really saw us as workers they could trust.

Our scholar-in-residence was an invaluable experience for us. It gave us both breadth and depth, and introduced us to a world in which we had never worked but for which were preparing our students. I think that our experience has made us better able to do just that.

Working Through Conflict

The Benefits of the Inherent Conflict between Industry and Technical Communication Programs

Anthony Flinn
Assistant Professor of English
Eastern Washington University

The theme for this meeting takes as its premise that greater interplay among the academic, industrial, and professional worlds will benefit technical communications programs. On the face of it, this premise is inarguable—our academic programs need financial support, access to changes in communications technology, and continuous updates on what employers expect from our graduates. However, as we witnessed at last year's CPTSC conference, many of us are uneasy about linking ourselves too closely to local industries. There are fears that our programs will be reduced to mere training centers, or that our intellectual and academic focuses will be shifted to serving a commercial research function. What I argue in this position paper is, first, that a mirror image of this conflict is replayed daily on technical writing staffs working in industry, and second, that such conflicts are as desirable as they are inevitable.

This conflict is mirrored in industry in the multitude of warring requirements commercially successful technical communication must meet. First, products must be completed and put before the public as rapidly and cheaply as possible. At the same time, it must display a reasonable measure of professional knowledge and skill that are attainable only through working at a more contemplative, reflective pace, experimenting with often expensive new technologies. It must display a measure of originality, innovation, even novelty, yet at the same time must speedily emerge from a set of standard, internalized documentation practices, from well-oiled publications machinery.

Another version of this internal conflict typically underlies technical communication programs. The fundamental justification for such programs, we must admit, is that careers in technical communication demand a preparation that most effectively comes from the academic world. Yet we balk, and I think quite rightly, at the notion that we are preparing students for a "trade." An education, as opposed to the humbler "training," provides an intellectual flexibility—the ability to identify and extend patterns, to think inductively as well as deductively. Our students' education must include, for example, an understanding of the complex of rhetorical pressures and strategies in technical writing. But because we betray our students if we fail to prepare them to enter careers, we cannot help but shape at least part of our instruction to the demands of the workplace. Consequently, we cannot help but train as well as teach.

What makes these internal conflicts not only necessary but desirable, both in industry and in our academic programs? They are theses and antitheses, setting the formulaic against the experimental, the concrete against the abstract, and training against education. They create a dynamic tension in which each side must face legitimate challenges from the other, thus having to justify and reevaluate itself. It is through such conflicts, of course, that learning takes place and that excellence has a chance to emerge.

In my years with US WEST Network Systems and Aldus Corporation writing software documentation, my colleagues and I wrestled relentlessly on these issues when designing our document sets and online Help. Had either side prevailed, we would either have missed our deadlines or turned out documentation that was flat, uninspired, and only marginally readable. But because of this institutionalized conflict, we made innovative use of the STOP format and reworked Microsoft's encyclopedic reference with considerable success. Our results would not have been possible without the combination of academic influence and years of experience using limited resources to meet unreasonable deadlines.

My cheerful assessment of our plight should in no way make us less wary of industry's influence as we force ourselves to curry favor with it. The pressure to surrender to industry's influence is considerable. What I am advocating, though, is that we neither shrink from that influence, or, what may be worse, derisively dismiss industry's conduct and expressed values. As good post modernists—and good scholars—we must strive to deconstruct the circumstances of our academic requirements and biases and look through the looking glass to see the often necessary basis for industry's biases toward the demands of the marketplace. However morally dubious the profit motive is, we cannot ignore our own complicity in that pursuit. More important, we ill-serve both our students and our scholarship unless we can accept as a premise that the exigencies of our corporate counterparts merit an objective hearing. Having done so, we will better serve our students, enrich our scholarship, and bring more authority to our badly needed critiques of industrial practices. In select cases, we may even forge a more profitable relationship with our counterparts.

I do not use the term "counterpart" loosely. On the one hand, we must "counter" the pressures of the marketplace. On the other hand, we are dependent on each other's intellectual capital. We should not simply anticipate conflict; we should relish it.

Working through Conflict: Tensions in Funded Projects

Stephen A. Bernhardt
New Mexico State University
Las Cruces, NM

A combination of forces exerts pressure on technical and scientific communication programs to seek outside sources of funding. In times of lean budgets and slow growth, outside funds look increasingly attractive to those programs housed in cash-starved English or humanities programs. New sources of funds beckon faculty in technical communication. As government, business, and industry recognize the value of strong technical communication, they are more likely to channel money into university projects to develop prototype documentation, solve specific research problems, or create training programs to help ease the transition into the information economy. As technical communication programs expand their interdisciplinary bases, they tend to adopt both the ethos of science or engineering programs and the funding strategies of such programs. Funded projects are viewed as part of the proof that technical communication is indeed a technical discipline. Since technical disciplines at research universities tend to bring in anywhere from 40-70% of their budgets from outside-funded projects, deans and program directors come to expect technical communication programs to do likewise.

Those of us who direct programs in technical communication should enter these Faustian compacts with a clear understanding of the costs and benefits. This paper in intended to raise some of the issues associated with funded contracts by highlighting both pros and cons. I will speak from my own experience at New Mexico State

University, but I think what I say will resonate with others who are undertaking or pursuing outside funding as a means of program support and development.

Contracts: A Chance to Situate Our Knowledge

One of the overwhelmingly positive impacts of funded projects is the confirmation of the value of what we know. There really is a reservoir of useful knowledge in our programs, knowledge that has value in situations outside the university. We know, for example, how documentation should be designed and how to make it work. We can critique various types of documents and the ways they flow within organizations. We can spot problems with the ways writing or communication works inside industries. This sort of knowledge is extremely useful and industries are willing to pay for it.

I am struck repeatedly by the fact that what we know has value. People in the workplace profit immensely when we call their attention to the central importance to good writing of a strong sense of purpose and audience. We can demonstrate how documents can be drafted and revised to work better when they are informed by a clear sense of purpose and audience. There is similar value in what we know about instructional design, about teaching basic reading and writing, about conducting a meeting, or about negotiating a tricky conversation. Working in settings outside the university confirms the value of what we know and allows us to deepen our understanding by placing that knowledge in context, by situating our knowledge in work.

At its best, outside funding can integrate theory and coursework for both professors and for those students who work on the projects. Paul Meyer and I have run a large training grant under the U.S. Department of Education's National Workplace Literacy Partnership program for the past few years. The grant has been a wonderful source of experience for our graduate students. They extend what they know about teaching writing and communication skills to a particular environment–healthcare–through creating short courses in effective communication. They enhance their skills in developing instructional materials as they prepare coursebooks, flyers, and overheads. And they receive intensive feedback as they hone their training skills, on their feet, in front of groups of hospital workers. This allows our graduate students in professional communication to develop strong resumes in the areas of training and workforce development while reinforcing what they know about communication.

At the same time, outside funding can be a distraction. It can sidetrack a program or department to areas outside academic currents or to areas of peripheral interest. To take one example, there is currently a lot of money floating around to support economic development. Our technical communication faculty and graduate students have good liaisons with our Business School and their Center for Economic Development and Assistance. We've become engaged in a wide array of projects: working with Pima Indians of the Gila River Reservation near Phoenix to produce insulation products from waste cotton; working with Navajos to start a building supply wholesale operation, working with Sandia National Labs on technology transfer and concurrent engineering projects, and working with Santa Clara and Laguna Pueblos on strategic planning. Each project is interesting, invoking a range of new experiences and opportunities to apply what we know to writing proposals, creating technical training, analyzing markets, negotiating contracts, managing information, studying project feasibility, writing business plans, etc. Yet each pushes at the boundaries of how we might define technical communication and what we might expect of faculty and students in such a program. Certainly, the activities can be construed as communication related, but how central are they? How much time should faculty and students in technical and professional communication be spending on gaining background knowledge of asbestos vs. fiberglass insulation, of laser-leveled cotton fields and ginning technologies, of trends in the logging and lumber industry, or of tourism markets for hotels and golf courses? What is central and what is peripheral to technical communication is an open question, but each project exerts forces that take students and faculty in directions that were surely unanticipated as we made decisions to enter technical communication.

Theory and Research vs. Practice

By its nature, professional communication tends toward practical and applied kinds of knowledge, and outside funding pushes the field even further in this direction. Our hospitals, for example, are consistently defining a problem related to basic reading skills. All hospitals are currently engaged in training for quality, or, by another name, continuous operations improvement. What the hospitals soon discover is that many of their workers do not read or write or problem solve at levels that allow them to profit from the quality training, and we are asked to help. Now, basic skills development is important work, but it is not what most of us would define as a critical area of research inquiry in scientific or technical communication. Yet if we are on funding to help hospitals improve the communication and literacy skills of their workforce, this is a practical need that we must address through our time and professional resources.

This practical orientation arises partly from the good fit of our field and likely sources of funding–training as opposed to research. Training dollars are often easier to go after, and given the current inclinations of President Clinton and Robert Reich, the Secretary of Labor, we should see increased funding for training efforts. It is often training-related knowledge that we gain from projects in writing-across-the-curriculum, from our efforts to strengthen writing in engineering, or from our work in advanced university courses in technical and scientific communication. Training calls on the skills we have from teaching, from writing textbooks or computer-assisted instruction, or from much of the classroom-based research that typifies our field.

The cumulative weight of this training expertise leads to a practical orientation in funded initiatives that may do little to advance the research or theoretical base of our fields. Research opportunities do arise: for case studies of documentation, or studies of the persistence of training effects, or ethnographies of the discourse communities or work cultures inside organizations. But often, energies on funded projects are consumed by the day to day demands of delivering a quality program. We tend to use what we know about training, rather than enhancing knowledge through basic research. The writing or research that does emerge tends itself to have a very strong practical or applied basis.

Universities vs. Agencies: Controlling the Research Agenda

There's no free lunch, no free dollars. All funded projects have agendas attached to them, and these agendas are increasingly being called into question. Should universities be for hire by industry or the government? To what extent?

At New Mexico State, a recent proposal to the U.S. Army Information Systems Command was developed by a large team of university researchers, together with the Physical Science Laboratory (a lab associated with the university that traditionally has funded much of its efforts through defense-related work in missile testing, high altitude ballooning, night vision, and similar projects). In essence, the university was responding to a Request for Proposal (RFP) to create an open-ended professional services contract with the Army for research, development, support, and training to help the Army meet whatever needs it has for research and support for their computer-based information systems. If awarded, the contract would mean that the Army would issue work orders and the university would determine costs and form teams to address the work orders: developing software, testing instrumentation, training personnel to use new computers or software, writing documentation or training materials to support the whole process. Worth an estimated $5-10 million per year, the contract was sufficiently tempting to the university to stimulate a response to the RFP (the award has not been made as of this writing).

Here is a case of agency goal setting, with ethical implications for the university. Should a university be for hire? Should the assembled resources of, say, the computer science faculty or the engineering psychology faculty be given over to the Army? Should university researchers remain independent? Should *they* determine what the important computing problems are and how to address them? These and similar questions were raised during the proposal writing. Most hung in the air, troubling some but perhaps already worked through by others.

Each time a researcher goes after a funded project, there is a compromise between the researcher's agenda and that of the agency. The agency's agenda compromises not just the researcher's agenda, but that of the department, or college, or university. Projects direct resources toward agency goals.

Control of Time

As university research professors, we are accustomed to having control of our time. We work quite hard, but typically on projects of our choosing. Our time is divided between teaching and preparing to teach, well defined research efforts with significant grounding in scholarship, and some service component. We feel lucky if we have a little graduate assistant support on special research projects, helping us out in the library or lab. We control the impact of paperwork and bureaucracy on our lives and feel more productive for it.

Now this may seem obvious, but it is nonetheless important: Funded projects are demanding in terms of time. Proposals take a lot of time to write, easily as much time as one or two strong scholarly articles. While the funded ones tend to earn praise and recognition, the unfunded ones do not. And writing proposals is only the beginning.

When you direct a funded project, you are no longer simply a professor–you become a project manager (just as department heads or composition directors become managers). What this has meant for me is a changed rhythm to my life: mornings spent on the phone, Thursdays and Fridays spent traveling to project sites, and a flow of paperwork from various federal agencies, budget officers and fiscal monitors. It has meant learning federal, state, and university regulations on travel, appointments, salaries, professional services contracts, budgets, and purchase orders. It means many rounds of memos to gain approvals for changes, many meetings with state and local agencies, and more first-hand experience than one might desire with how bureaucracies move (glacially). Managing projects has forced a new level of organization in my life to cope with many things going on all the time. It has taken most of the relaxed, contemplative nature out of my academic life. I have enough of an administrative streak in me that I enjoy this to some extent, but many academics would see all this activity as subverting the very reasons they became academics in the first place.

The same pattern can emerge in funded projects for graduate students. They may respond to the activities and deadlines of project work while neglecting those less pressing but more central demands of the library and scholarship. Books wait to be read, but proposals, progress reports, data collection, or training classes insist that they be done now. Projects change the rhythm of studying and teaching for graduate students as well as professors.

Large projects have large staffs, and so project management extends to directing the energies of secretaries, project assistants, and other professors on the project. Our hospital project has about 180 hours of work per week on the direct payroll, with many other people spending time on the project on a highly varied basis. Directing others takes energy and coordination. It is my experience that students are not particularly productive when given a project and told to go do it, in part because they have so many demands on them through classes and other obligations. Without close supervision, without a boss/manager/professor working side-by-side and being explicit and demanding, most students (with a few notable exceptions) do not accomplish much.

The upside of this is that funded projects offer the opportunity to develop close, collegial relationships between professors and students. It is difficult to substitute some other experience for working together: as researchers, team teachers, or collaborative writers. Funded projects buy time for professors and students to do just that: to work closely and develop strong relationships as mentors and students.

Control of Money

Funded projects grant some level of autonomy: typically a course or two of released time from teaching; for graduate assistants, a research position might replace teaching introductory composition. Projects often bring with them summer money, which is somehow always necessary to pay the mortgage. Depending on university regulations, they may bring pay beyond salary. Our university is fairly liberal in this regard, and we can be paid to consult on funded projects within the university. Such pay can often mean the difference between a low salary and a decent one.

Funded projects bring dollars to the principal investigators, to the department, and to the college. Projects augment the departmental budget for copying, phone, travel, equipment, and supplies. They can provide graduate assistant support at enhanced salaries, so there is a way to reward outstanding graduate students. Funded projects typically return to the department or researcher some portion of the project overhead (a line in the budget from the granting agency, typically between 8% for training grants and 50% for research grants, that represents the cost of overhead for running the university).

This overhead money can really help a department. We use it to supplement travel funds for faculty and graduate assistants, buy computer equipment, bring in guest speakers, and for research-related expenses. Departments that really get into the game of funded contracts soon get hooked on overhead, counting on it to support many program initiatives, or labs, or research projects that would otherwise not be possible.

Overhead frequently creates struggles for control, however, and it can cause tensions among faculty and administrators. Administrators stand in line to skim overhead off the top as it comes into the university; sometimes money makes its way through the administrators and deans and department heads to the individual faculty member, but sometimes it does not. When the energy and research initiatives of a faculty member create money that is then out of the researcher's control, all sorts of jealousies can arise. Traditional English or humanities scholars, for example, may disparage the work of technical communications faculty and their applied engineering bent, and yet be eager to spend the overhead dollars. When there is overhead money that can go to equipment, there will be arguments about who is most deserving and who should have say over how the money is spent. In short, it is nice to have extra money around but it brings its share of arguments and tensions along with it.

Funded Projects: Proceed with Caution

Funded projects create many wonderful opportunities for students and professors in technical and scientific communication programs. We should expect to see more opportunities for funding and more pressures placed on us to go after the funds. There is something addictive about pursuing funding; it is fun to sit around calculating the dollar/page ratio of this kind of writing. Faculty in technical communication generally like to write and take pleasure in successful words. When a proposal comes in and a budget is negotiated and opened, there's real satisfaction. Few sorts of writing have a more sure measure of success.

As a profession, we will undoubtedly increase the time we spend pursuing external funds. It is a great way to immerse ourselves in the workplace, and in the process we gain new learning, new skills, and new consulting possibilities. We should pursue these opportunities, however, with an open understanding about how they direct our energies, compromise our time, and raise ethical questions that would not be raised in their absence.

Working Through Conflict:
Organizing Industry Advisory Groups

Henrietta Nickels Shirk
Associate Professor, Technical Communication
Boise State University

Industry and Technical Communication Programs

Most technical communication programs have come into existence because of needs for the communication skills of our graduates in certain segments of business and organizational settings. Without these expressed requirements in the workplace, most of our programs would probably not have been created. However, the resulting relationship between academia and industry can sometimes be characterized by conflict as the two groups attempt to work closely together in designing, developing, and supporting technical commmunication programs.

In this paper, I examine some of the potential conflicts between industry and academia regarding technical communication programs, and I suggest several methods for those directing the development of technical communication programs to work creatively and enjoyably with industry advisory groups. These comments are based on my observations from "both sides of the fence." As a technical publications management professional in industry, I participated for five years as a member of an industry advisory board for the Technical Writing Training Program (a graduate-level certificate program) at Northeastern University in Boston, Massachusetts. Later, when I joined Northeastern's technical communication faculty on a full-time basis, I helped to administer the same program for an additional five years. This ten years of experience has given me a unique and double-edged perspective on the issues and conflicts confronting industry advisory groups to technical communication programs.

In both these capacities, I frequently experienced conflicts resulting from differences of opinion between industry and academic representatives that were based on differing assumptions about what technical communication programs ought to accomplish. While the resulting (often lively) discussions usually resulted in improvements for the program, the progress toward this achievement was often characterized by small disappointments on both sides, rather than by major conflicts. While some conflicts can be healthy and serve as catalysts for growth and change, other conflicts can also be debilitating, especially if they occur in small increments consistently over a long period of time. My goal here is to concentrate on ways that these inevitable small conflicts can be either avoided or prevented from becoming major issues that diminish rather than assist the development of a technical communication program.

The Conflicts Between Industry and Academia

Organizations employing technical communicators are interested in our programs because they are interested in our graduates as potential job applicants. Academic institutions are interested in what the profession is looking for in our graduates, because we want our graduates to be well-prepared for their careers and to obtain good and professionally satisfying positions. If technical communication programs unite industry and academia in a common arena of interest, why should there be any conflicts? The answer to this question lies in a misunderstanding of the goals and needs of the two groups, and the resource restrictions under which each of them operates.

Business, industry, and governmental agencies that hire technical communicators tend to want our programs to give students the kind of knowledge and skills required by technical communicators who work in their organizations. While this is an understandable goal, it may be too limited in scope to fulfill the needs of a more comprehensive program. Advisory group members must understand the risks to a program of their being too parochical in their requirements, while academics must be alert to the implications of being influenced too heavily in program curriculum planning by a dominant or influential segment of local industry. The resulting tension between individual organizational needs and the broader needs of a technical communication program can often result in subtle conflicts. The way to minimize such differences is to discuss openly the differing needs of both groups in an attempt to encompass as much diversity as possible within the scope of the goals of a particular technical communication program.

As academics, however, we know that, in addition to articulating our program goals, we must constantly be alert to and work within the constraints of program resources. Even though we may receive an excellent idea from an advisory group member for adding new courses to our existing technical communication programs, we may not always be able to implement these ideas because of lack of funding or the constraints of position openings or even of finding suitable candidates for teaching such topics. These resource limitations need to be communicated to advisory group members, so that they are not left thinking that their creative ideas and suggestions are being ignored.

Sometimes, the tensions resulting from the inability of academics to implement the helpful suggestions of advisory group members can be amelioriated by including such suggestions in long-range program plans. Advisory groups can provide important and insightful input to long-range planning, and technical communication programs would do well to have at least a five-year plan in place to articulate their future goals. An annual revision of such a plan could become a meaningful collaborative effort, as academics contemplate the potential theoretical implications resulting from industry representatives' projected changes in various organizational, professional, and technical environments. The key to success is to maintain a continuing dialogue over time.

Conflicts can most often be avoided or resolved by looking for commonalities between the differing positions. The common concern for academics and industry advisors is that both groups deeply care about our students and about the skills and abilities that these students gain from our technical communication programs. We are all in pursuit of the elusive quality of professional ***excellence*** for our graduates, although our ideas for reaching this goal may be informed by different assumptions. Knowing and understanding each other's viewpoints is one way of fostering cooperation and creativity in our programs. Recognizing the unique contributory positions of industry advisors also enhances better understanding.

Industry Representatives as "Volunteers"

It is important to remember that industry advisory group members are, above all, ***volunteers***. Unlike many boards of directors in companies that have stockholders, I know of no technical communica-program that pays its advisory group participants for their "services." The assumption on the part of most program directors is that we want "advice" from our industry advisory groups, and that this advice is to be given at no cost to us. In many ways, we academics can avoid potential conflicts and disappoints from our industry advisory groups by accomplishing two things: (1) Select our advisory group members carefully; and (2) Communicate our expectations of advisory group members directly to them from the very beginning. Both of these guidelines require some further explanation.

If the future success of a group can be determined by its composition, then selecting industry advisors for a technical communication program may be the single factor that contributes most directly to its success. Industry participants in technical communication program advisory groups should be experienced professionals in management positions that are directly involved in administering technical communications functions within their organizations. Selecting industry advisory group participants who are first-line workers rather than managers can result in a lack of breadth of vision and perspective on the field and a lack of clout in gaining support from the organization represented by the group member. On the other hand, a "big name" in the field or a highly placed corporate vice president is not always a "big help" in an advisory group. We need management-level participants who are willing to share their knowledge and experience and to actually perform some work and services in behalf of our programs and the students in them.

We academics also have an obligation to communicate our expectations of advisory group members "upfront," before they actually join the group. I suggest formulating a set of guidelines for the functioning of an advisory board, outlining roles, responsibilities, and expectations. I believe that many of the issues that occur between industry respresentatives and academics happen because both groups have different expectations of the other. If a new industry advisory group is in the process of being formed, it can be a mutually satisfying and unifying task to sit down and draft these guidelines together. But it is never too late to have an existing advisory group refocus itself through the same task of forumulating guidelines for its functioning and for articulating mutual anticipations.

An even more important factor in minimizing conflicts than establishing guidelines, however, is the simple act of expressing gratitude for the contributions to our programs by advisory group members.

Suggestions for Ways to Show Appreciation

In responding to a survey of Northeastern University's industry advisory board in which one of the questions was "How can we better show our appreciation for all the work you do for us?," one board member answered, "Just say thank you once in a while -- that's all I care about." But I believe that there are some meaningful alternative ways to say "thank you," beyond the two words themselves. As volunteers, industry advisory group members appreciate our recognition for their efforts, and such recognition builds continuing trust and therefore decreases conflicts resulting from tensions due to differing perceptions of a technical communication program's goals. Many of the ways of showing appreciation are very easy to accomplish, and they involve minimal amounts of time.

Common classroom activities for industry advisory groups involve inviting the advisory group members to participate as guest speakers or members of panel discussions on professional issues in technical communication. Often, the advisory group members will invite technical communication classes to visit their corporate settings to observe an actual environment in which technical communicators work. Such events should be followed-up immediately with personalized notes of appreciation, from the instructor and the whole class.

Listing advisory group members, their titles, and their corporate or organizational affiliations on our program advertising materials gives these volunteers significant professional recognition outside of their own organizations. In addition, if we have established technical documentation libraries connected with our programs, all contributions to these libraries should include bookplates with the names of the persons making the donations and their organizational affiliations.

Another way of giving recognition to advisory group members is to send a news release about their contributions to our programs to their company employee newsletters or even to the local newspapers. Such publicity also serves the additional benefit of making our programs visible within their respective communities. An annual letter to the immediate "bosses" of advisory group members that summarizes individual volunteer contributions to programs can also be a meaningful way of expressing appreciation and giving all the members more recognition within their own organizational settings.

Finally, ongoing communication with advisory groups beyond the formal and regular times for their meetings is a way of showing respect and appreciation for their opinions about and input to our programs. It is important for advisory group members to participate in giving advice to our students (perhaps as mentors and industry advisors to our students or as participants in job interview simulations). In addition to including advisory group members in such activities, program directors can also make certain that the members receive copies of some of the assignments completed by the students (perhaps a collection of technical reports written by the students or copies of their resumes), in order to give them first-hand understanding of what the students are learning and how they are progressing as they move through their program.

Communication is obviously a key factor in the successful relationship between industry advisory groups and members of the academic community The sharing of information is a way of showing appreciation for the expertise of the experts we invite to join us in our pursuit of excellence, and it may also serve as a catalyst for generating further ideas about the subject matter and techniques that we should be teaching in our programs.

Industry Advisory Boards in the Future

Industry advisory groups will continue to be important factors in successful technical communication programs. Industry needs to give our programs advice, and we need to receive helpful advice from them. How industry advisory groups will function and how much and how successfully they will contribute to our programs may depend on how willing we are to communicate with them, and to grow and change, and even to revise our views of what industry advisory boards ought to accomplish as we work with them.

Increasing economic exigencies may require that technical communication program directors look increasingly to industry advisory board members for part-time and adjunct instructional support. As this occurs, academics will need to consider quality control issues, making certain that knowledgeable industry experts have appropriate teaching skills in addition to their content knowledge. Or, if the industry experts do not possess such backgrounds, they should be given suitable opportunities for acquiring instructional skills, if they want to teach in our programs.

Perhaps there will also be even more and different kinds of exchanges between industry and academia. In addition to student internships, faculty internships are also a possibility -- arrangements whereby interested and qualified industry practitioners and faculty members can work in each other's positions for specified periods of time. In fact, such "practical experience" should be required of all full-time technical communication faculty members on a regular basis. The experience and knowledge gained by both members in such partnerships could provide invaluable insights for the technical communication programs involved in such activities.

Whatever new directions may be before us, we are probably safe in assuming that the establishment of industry advisory boards will continue to be an essential component for most successful technical communication programs in the future. The inherent conflicts that emerge from these close working relationships between industry and academia will contribute to the growth and development of our technical communication programs. These conflicts will also be essential factors for our programs' continuing abilities to meet the needs of the many communities and professions in which our graduates become employed. Our successes in dealing with these conflicts will ultimately contribute to the whole profession of technical communication -- as we move beyond the specific needs of organizational settings and beyond the student learning experiences in our classrooms.

19th Annual Business Meeting

Business Meeting
The Council for Programs in Technical and Scientific Communication

Boise State University
Boise, Idaho
October 10, 1992

Call to Order

Old Business

Minutes of the 1991 Annual Meeting

Treasurer's Report and Membership
Laurie Hayes

Report on Publications
James Zappen

Report on Publicity
Dan Riordan

Report on Program Development Advisory Committee
Henrietta Nickles Shirk

New Business

Location, Format, and Theme of the 1993 Annual Meeting

Location of the 1994 Annual Meeting

Election Results
Marilyn Samuels

Guide to Programs in Technical Communication

Other

Announcements

Adjournment

CPTSC

Nineteenth Annual Meeting
October 10, 1992
Boise, Idaho

The meeting was called to order by Sam Geonetta at 9:30 a.m.

Special Election Item: Marilyn Samuels announced a tie in the election for Secretary between Karen Schriver and Steve Bernhardt. On advice from the Executive Committee, a secret run-off ballot was conducted among the members present, resulting in Steve Bernhardt's election, who duly transcribed these minutes.

Minutes from October 12, 1991: Approved.

Old Business

Treasurer's Report: Laurie Hayes reported good financial health and presented a budget summary. She noted that copies of Proceedings were still available, announced a one-time only offer, and promptly sold three sets of Proceedings (for the past six years at $20 per set) to members in attendance.

Membership: Laurie Hayes reported 76 paid members, including one corporate membership, NCR. The Executive Committee has recommended that, in the future, second notices be sent in the early spring to members who have not yet renewed. The goal for the coming year is to continue to strengthen program development and to push for stronger representation among two-year colleges.

Publications: James Zappen noted that we had published our Proceedings and two Newsletters during the past year. News for the Newsletter was fairly sparse this past year and members are encouraged to submit items of interest. He also noted the desirability of publishing the Proceedings in ERIC, as has already been done with the 1974-84 Proceedings. Sam Geonetta agreed to extend the Council's thanks to Susan Katz of Rensselaer, who has been helping with both the Newsletter and Proceedings.

James Zappen noted the need to establish Council archives, perhaps at the site of the original meeting, the University of Minnesota. Laurie Hayes will check with the University on arrangements.

Publicity: Dan Riordan reported mailing information to some 177 member prospects, as well as placing announcements of Council activities in *College English*, *Intercom*, and *Technical Communication Quarterly*. He noted we should continue this activity as it does bring in new members.

Program Development Advisory Committee: Henrietta Shirk acknowledged that the Program Development Advisory Board had finished its business and delivered its report. This item was then turned over to the Executive Committee, to be taken up later in the meeting under New Business.

New Business

Location, Format, and Theme of 1993 Annual Meeting: It was decided to hold the Twentieth Annual Meeting of CPTSC in Charlotte, NC, with a tentative date of October 7-9. Deb Bosley and Meg Morgan will host the meeting at UNC-Charlotte.

The format for the meeting will center on short (5-7 minute) position papers to allow plenty of time for group interaction. Deb Bosley and Meg Morgan, working with the Program Committee, will explore the option of a Friday evening panel session (following the banquet) with industry representatives.

It was also decided that the Thursday evening reception would be of greater value if more members brought single page descriptions of program activities on their campuses (enrollments, trends, new initiatives) in addition to program brochures and descriptions of program requirements.

The theme for the program is *Technical Communication: Strategies for the Next Twenty Years*. The program will focus on such issues as trends in the teaching of technical and scientific communication, including redefining and professionalizing programs, connecting across disciplines and with industry, and funding new program initiatives. Particular interest was expressed in issues of program demographics: how well we are addressing issues of diversity and the needs of two-year college students.

Possible Locations for Future Meetings: Houghton, Michigan (Michigan Tech), Santa Fe, New Mexico (New Mexico Tech and New Mexico State) and Miami, Ohio (Miami University)

Election Results: Marilyn Samuels reported the following election results:

President:	James P. Zappen, Rensselaer Polytechnic Institute
Vice President:	Daniel Riordan, University of Wisconsin-Stout
Treasurer:	Laurie S. Hayes, University of Minnesota
Secretary:	Stephen A. Bernhardt, New Mexico State University
At Large	Mary Coney, University of Washington Katherine Staples, Austin Community College Chris Velotta, NCR-Dayton

Other Business

Survey of Programs: Sam Geonetta reported that the survey of programs in technical communication should go to STC publications by December 1. He noted that current figures indicate 22 Associate Degree programs, 65 BA , 33 MA, and 7 PhD. Many additional departments offer one or two courses and would not be considered as having programs in technical communication.

STC Relations: Sam Geonetta read a portion of a letter from David Armbruster, immediate past president of STC, which indicated that STC's pursuing an accreditation process for technical communication programs is not likely. The letter also indicated that a sliding fee scale for membership or meetings of STC was not likely either. Katherine Staples noted that STC continues to be interested in working together, that there is indeed strong good will. She noted an increase in grant activity to technical communication programs, a new Education and Research Professional Interest Committee newsletter (edited by Stuart Selber of Michigan Tech), and the funding of the guide to academic programs in technical communication.

Katherine Staples noted that STC had funded $500 toward the purchase of a display for information about programs in technical communication. After some discussion, it was moved and seconded to contribute $100 of CPTSC funds to help pay the costs of the display.

Program Development Review: Marilyn Samuels moved that the Executive Committee of CPTSC determine procedures for implementing the Program Development Board and present the plan at the next meeting. The move was seconded and approved by acclamation.

Undergraduate Research Conference: Laurie Hayes called attention to the Undergraduate Research Conference, to be held March 25-27 on the campus of the University of Utah at Salt Lake City. She urged members to encourage their students to become involved.

Thanks: CPTSC extends its gratitude to Boise State University for providing meeting space at no cost; to Henrietta Shirk and Sherry Southard for conference arrangements; to Mary Coney and Karen Shriver for chairing the program; to Rensselaer for support in producing the newsletter and proceedings, with a particular acknowledgment for good work to Susan Katz; and to Jennie Fremouw at the University of Wisconsin-Stout who helped with publicity.

Respectfully Submitted,

Stephen A. Bernhardt, Secretary

CPTSC Financial Report
September 30, 1991 to September 30, 1992

BALANCE FROM SEPTEMBER 30, 1991			$1207.16
CREDITS			
Interest on checking account (10/91-9/92)		53.71	
Memberships -- 1991 (10 individuals)		200.00	
Memberships -- 1992 (70 individuals)		1400.00	
(1 corporation)		100.00	
Registrations -- 1991 Annual meeting		2320.00	
Sale of Proceedings		55.00	
total:		4128.71	+ $4128.71
DEBITS			
1990 Annual meeting			
hotel	1769.50		
lunch at UofC	282.00	2051.50	
Newsletter -- Fall 1991			
printing	122.00		
postage	79.38	201.38	
Newsletter -- Spring 1992			
printing	42.00		
postage	25.52	67.52	
Proceedings -- 1991			
printing (85)	740.00		
postage	79.81	819.81	
Renewal notices -- 1992		29.00	
Executive Committee meeting -- 1992		165.14	
Miscellaneous administrative expenses			
PRB Committee	208.88		
publicity	33.64		
postage	20.00	262.52	
total:		3596.87	- $3596.97
BALANCE			$1739.00

Respectfully submitted,

Laurie S. Hayes

Laurie S. Hayes, Treasurer
October 10, 1992

Executive Committee Meetings

CPTSC

Meeting of the Executive Committee
October 8, 1992
Boise, Idaho
9-10:30 pm

present: Sam Geonetta, Jim Zappen, Marilyn Samuels, Dan Riordan, Mary Coney, Laurie Hayes

absent: Sherry Little, Karen Schriver

1. Status of the Proceedings and Newsletter -- Zappen

Geonetta noted that these have been out, on time, and feedback indicates satisfaction with the content and appearance of the publications. Zappen mentioned his frustration with the fact that the newsletter is not covering "news" of programs; people are not submitting program items to him. New ways to get newsletter copy will have to be adopted in the future. Geonetta asked Zappen to extend CPTSC thanks to Merrill Whitburn, Zappen's department chair at RPI, and to Susan Katz, Zappen's graduate assistant.

2. Membership -- Hayes

Hayes reported that prior to the Boise meeting, membership for 1992 totals 71 (including one corporate member). Of the 71, 52 are persons who were members in 1991 and 19 are persons who were not members in 1991. Seven persons listed as presenters on the advance program are not current members, so prospects for increased new membership are good. The Executive Committee recommended that, in the future, second notices be sent in the early spring to members who have not yet renewed. If all 1991 members had renewed, the combined total of new and former members would approach our 1992 goal of 100.

3. Financial status -- Hayes

Hayes reported a treasury balance as of 9/30/92 of $1739.00. This is an increase of $581.84 over last year at this time. The Executive Committee discussed the opportunity to package copies of previous Proceedings. Before this meeting, Hayes had asked Geonetta and Zappen to bring some copies of the two issues of the Proceedings that each had edited. It was decided that for this meeting a Proceedings package of six issues (1986-1991) be offered for a total price of $20.00, and that these be sold after the meeting, until they are gone, for $25.00 (to add in the cost of postage). Hayes will see that this "offer" is appropriately publicized and managed.

4. CPTSC Archives -- Hayes/Zappen

Hayes has some papers that were in the files of Tom Pearsall, a CPTSC founder, dating to 1973. Hayes and Zappen propose that these and other CPTSC historical papers would be archived in an institution's library. Hayes will approach the University of Minnesota; Zappen has had some preliminary discussions with RPI. It was agreed that the institution willing to hold the collection will not have to "make copies" of documents in response to inquiries. Persons interested in the archives will have to travel to the papers.

5. The Annual CPTSC Meeting for 1993 -- Geonetta

The 1993 meeting will be the 20th for CPTSC. Preliminary offers from New Mexico State and University of North Carolina at Charlotte were discussed. The place for the next meeting will be determined and announced at the Business meeting on Saturday, October 10, 1992. Items to discuss when the site is selected will include: geographical variety, visiting the home of a new program, choosing a theme (vision?), inviting special panelists.

6. Meeting publicity -- Riordan

Riordan publicized the Boise meeting (and CPTSC membership) by sending notices to : persons on the STC scholarship list, College English, Intercom/FYI, Technical Communication Quarterly, and the ATTW Bulletin. The Executive Committee endorsed similar efforts for the 1993 meeting.

7. Status of the Program Review/Development Board -- Geonetta

Geonetta will report progress/status to the membership at Saturday's business meeting and the new Executive Committee will work on implementation. Geonetta's efforts to derive an accurate list of programs in scientific and technical communication has been both frustrating and informative.

8. Election results and working with new officers -- Samuels

Samuels reported on the nomination and election process and outcomes. Because of a tie in the balloting for the office of secretary, the Executive Committee, after consultation with the Parliamentary authority named in the CPTSC Constitution (Alice B. Sturgis, Standard Code of Parliamentary Procedure) will consult with the members at Saturday's Business meeting. The Executive Committee will recommend that the members present have a second secret ballot, but the final choice of procedure will be up to those members present at the meeting.

There will be a meeting of the new Executive Committee sometime after lunch on Saturday.

Respectfully submitted,

Laurie Hayes

Laurie Hayes, Acting Secretary

CPTSC
Meeting of the Executive Committee
October 10, 1992
Boise, Idaho

Present: Jim Zappen, Sam Geonetta, Dan Riordan, Mary Coney, Laurie Hayes, Katherine Staples, Steve Bernhardt **Absent:** Chris Velotta

Decisions

1. Spring meeting of Executive Committee:

A meeting is tentatively scheduled during CCCC in San Diego for April 3, 1993, at 12 noon with lunch to be arranged by Jim. Include Meg Morgan and Deb Bosley in meeting for conference planning.

2. Publishing papers from contributors who do not attend the meeting:

We decided we cannot publish papers in the Proceedings unless they are presented at the annual meeting, since the Proceedings represent a record of the meeting.

3. Program Development Advisory Board:

The initial Implementation Committee includes Henrietta, Sam, Laurie, and Bill Karis. This Committee should present a preliminary report at the meeting in April in San Diego and a proposal to the membership in October in Charlotte.

Task List:

Most of the discussion centered on the tasks of the officers, as follows.

Everyone:

Submit a job description to Jim Zappen, who is at home on leave (call in the p.m.).

Send back issues of Proceedings to Laurie. Send originals to Dan, who will archive in ERIC.

Jim Zappen-President:

Work on letter to member prospects, perhaps to be included with a copy of the newsletter. Coordinate with those at-large members working on publicity–Mary, Chris, and Katherine.

Work with Sam on liaison activities with ATTW and WPA.

Dan Riordan-Treasurer:

Send text to Steve for new brochure.

Issue first newsletter with call for papers during December/January.

Issue second newsletter in May/June with call for papers.

Archive original Proceedings in ERIC.

Steve Bernhardt-Secretary

Send abbreviated minutes from Boise to Dan for newsletter.

Produce letterhead (1500 copies), revised brochure (1000), envelopes (1000), and second sheets (500). Circulate letterhead and brochure to Exec. Committee for approval.

Laurie Hayes-Treasurer and Membership

Send list of Executive Committee members to Jim for distribution.

Send information to Dan on number of leftover Proceedings for sale so notice can be posted in newsletter.

Sell copies of old Proceedings for $4 each.

Send Steve the minutes from the Executive Meeting from Thursday, October 10 in Boise.

Explore possibilities for archiving Council materials at University of Minnesota.

Katherine Staples-Member at large

Continue liaison activity with STC, including display board.

Head up Program for next year's meeting in Charlotte. Work with Mary Coney, Deb Bosley, and Meg Morgan. Fix theme and program strands and submission dates. Convey information by early November to Dan for the newsletter.

Mary Coney-Member at large

Publicity: Get list of targeted programs for new members from Sam and Laurie and send letters/brochures/newsletters/call for papers.

Work with Katherine on Program for next year's meeting in Charlotte.

Send a letter to those who requested their papers be published in the Proceedings even though they did not attend (I think we decided on you, Mary. My notes are fuzzy on this one.). Invite them to resubmit for Charlotte?

Sam Geonetta-Immediate Past President:

Talk with Chris Velotta about voting membership: individual vs. corporate.

Work with Laurie to compile a list of target programs for new memberships. Provide list to Katherine and Mary.

Follow up on program liaison with ATTW and WPA. Work on strategy for follow-up with Jim.

Respectfully submitted,

Stephen A. Bernhardt

Appendices

Appendix A

ATTENDEES

The Council for Programs in Technical and Scientific Communication

19th Annual Meeting
Boise, Idaho
October 8, 9, and 10, 1992

Betsy M. Aller (906) 487-3338
Department of Chemical Engineering/Department of Humanities
Michigan Technological University
1400 Townsend Drive
Houghton, MI 49931-1296

Marian G. Barchilon (602) 965-8669
Department of Manufacturing and Industrial Technology
Arizona State University
Tempe, AZ 85287-6806

Stephen A. Bernhardt (505) 646-2027
Department of English
Box 3E
New Mexico State University
Las Cruces, NM 88003

Deborah A. Bosley (704) 547-2708
Department of English
University of North Carolina
Charlotte, NC 28223

Mary B. Coney (206) 543-4557
Department of Technical Communication
14 Loew Hall FH-40
University of Washington
Seattle, Washington 98195

Marilyn M. Cooper (906) 487-2066
Michigan Technological University
1400 Townsend
Houghton, MI 49931

Jennie Dauterman (513) 961-7140
Department of English
Miami University
Bachelor Hall
Oxford, OH 45056

Anthony Flinn (509) 747-0629
Eastern Washington University
511 E. 19th
Spokane, WA 99203

Sam Geonetta (513) 556-6562
College of Applied Science
University of Cincinnati
2220 Victory Parkway
Cincinnati, OH 45206

Laurie S. Hayes (612) 624-4212
Department of Rhetoric
University of Minnesota
202 Haecker Hall
St. Paul, MN 55108

Bob Johnson (513) 529-7340
Miami University
Bachelor Hall, Room 272
Oxford, OH 45056

Bill Karis (315) 268-6484
Clarkson University
Box 5760
Potsdam, NY 13699-5760

Gisela Kutzbach (608) 262-4817
University of Wisconsin - Madison
9 General Engineering Building
1527 University Avenue
Madison, WI 53706

Meg Morgan (704) 547-4211
Department of English
University of North Carolina - Charlotte
Charlotte, NC 28223

Jo Lundy Pevey (404) 528-7422
Southern College of Technology
Marietta Parkway
Marietta, GA 30060

Dan Riordan (715) 235-7002
University of Wisconsin - Stout
1215 Wilson Avenue
Menomonie, WI 54751

Barbara Risch (505) 454-3451
New Mexico Highlands University
P. O. Box 1046
Las Vegas, NM 87701

Marilyn Schauer Samuels (216) 368-2362
Department of English
Case Western Reserve University
Cleveland, OH 44106

Bonnie Schmidt (608) 262-4822
University of Wisconsin - Madison
9 General Engineering Building
1527 University Avenue
Madison, WI 53706

Henrietta Nickels Shirk (208) 385-3983
Department of English
Boise State University
1910 University Drive
Boise, ID 83725

Sherry Southard (919) 355-0796
East Carolina University
390 Claredon Drive
Greenville, NC 27858

Katherine Staples (512) 467-8012
Austin Community College
508 Park Blvd.
Austin, TX 78751

Elizabeth R. Turpin (616) 796-7672
Department of Languages and Literature
Ferris State University
Big Rapids, MI 49307

Carole Yee (505) 835-5323
Humanities Department
New Mexico Tech
Socorro, NM 87801

James P. Zappen (518) 276-8117
Department of Language, Literature, and Communication
Rensselaer Polytechnic Institute
Troy, NY 12180-3590

Appendix B

Annual Meetings, Sites, and Dates

1st	University of Minnesota	St. Paul, MN	1974
2nd	Boston University	Boston, MA	1975
3rd	Colorado State Univerwstiy	Fort Collins, CO	1976
4th	University of Minnesota	St. Paul, MN	1977
5th	Rensselaer Polytechnic Institute	Troy, NY	1978
6th	Oklahoma State University	Stillwater, OK	1979
7th	University of Central Florida	Orlando, FL	1980
8th	University of Washington	Seattle, WA	1981
9th	Carnegie-Mellon University	Pittsburgh, PA	1982
10th	University of Nebraska	Lincoln, NE	1983
11th	La Fonda	Santa Fe, NM	1984
12th	Miami University	Oxford, OH	1985
13th	Clark Community College	Portland, OR Vancouver, WA	1986
14th	University of Central Florida	Orlando, FL	1987
15th	University of Minnesota	Minneapolis, MN	1988
16th	Rochester Institute of Technology	Rochester, NY	1989
17th	San Diego State University	San Diego, CA	1990
18th	University of Cincinnati	Cincinnati, OH	1991
19th	Boise State University	Boise, ID	1992

Appendix C

1991-1992 CPTSC Officers

President:	Sam Geonetta	University of Cincinnati
Vice President:	James P. Zappen	Rensselaer Polytechnic Institute
Treasurer:	Laurie S. Hayes	University of Minnesota
Secretary:	Sherry Burgus Little	San Diego State University
Members at Large:	Mary Coney	University of Washington
	Daniel Riordan	University of Wisconsin-Stout
	Karen A. Schriver	Carnegie Mellon University

Appendix

CPTSC Membership - 1992

Name	Business Address	Home Address	Office Phone Home Phone E-Mail
Susan K. Ahern	Department of English U of Houston-Downtown One Main Street Houston, TX 77002	3107 Deal Street Houston, TX 77027	713-221-8113 713-660-0384 SKAHERIV@ UHDBIT
Betsy M. Aller	Dept. of Chem. Engr. Michigan Technological U. 1400 Townsend Drive Houghton, MI 49931-1296	216 Hubbell St. Houghton, MI 49931	906-487-3338 906-482-8498 BMALLER@MTU .EDU
Gerald J. Alred	Department of English University of Wisconsin-Milwaukee Milwaukee, WI 53201	3555 N. Cramer St. Shorewood, WI 53211	414-229-4511 ( ) 964-4472
Paul Anderson	Master's Program in Technical and Scientific Communication Miami University Oxford, OH 45056	1316 Dana Drive Oxford, OH 45056	( ) 523-1548
Marian G. Barchilon	Department of Manufacturing and Industrial Tech. Arizona State University Tempe, AZ 85287-6806	2153 East Minton Drive Tempe, AZ 85282	602-965-8669 602-820-0464 ATMGB@ASUVM. INRE.ASU.EDU
Charles E. Beck	University of Colorado, Denver Campus Box 175 Denver, CO 80217-3364	7325 Mathews Road Black Forest, CO 80908	303-556-8304
Stephen Bernhardt	Dept. of English, 3E New Mexico State U. Las Cruces, New Mexico 88003-0001	4583 Sandlewood Drive Las Cruces, NM 88001	505-646-2027 505-521-4961 SBERNHAR@NMSU .EDU
Virginia Book	Dept of Ag Comm Rm 25 FIC University of Nebraska Lincoln, NE 68583-0924	7300 Old Post Road #4 Lincoln, NE 68506	402-472-3034 402-488-4117
Deborah S. Bosley	University of NC at Charlotte Department of English Charlotte, NC 28223	824 Heather Lane Charlotte, NC 28209	704-547-2708 704-523-1282 FEN00DSB@UNCCVM .BITNET
Pamela Estes Brewer	Terra Technical College 2830 Napoleon Road Fremont, OH 43420-9670	256 Williams Street Bowling Green, OH 43402	419-334-8400 419-352-0233

CPTSC Membership - 1992

Name	Business Address	Home Address	Office Phone Home Phone E-Mail
Robert M. Brown	Oklahoma State University English Dept. 205 Morrill Stillwater, OK 74078		
Mary Fran Buehler	Jet Propulsion Lab UCLA Extension 4800 Oak Grove Drive Pasadena, CA 91109-8099	410 Churchill Road Sierra Madre, CA 91024	818-354-2295 Fax # 818-354-2842
Rebecca E. Burnett	Department of English 203 Ross Hall Iowa State University Ames, IA 50011-1201	112 North Riverside Drive Ames, IA 50010-5971	
Mary Coney	Department of Tech Comm. University of Washington 14 Loew Hall, FH-40 Seattle, WA 98195	1047 Belmont Place East Seattle, WA 98102	206-543-4557 206-323-4200 MARY@UWTC.WASHINGTON.EDU
Marilyn M. Cooper	Department of Humanities Michigan Tech. Univ. 1400 Townsend Drive Houghton, MI 49931-1295	402 W. South Avenue Houghton, MI 49931	906-487-2016 906-482-7834 MMCOOPER@MTUS5.CTS.EDU
Dr. Jim Corey	Humanities Department New Mexico Tech. Socorro, NM 87801	635 Newberry Road Socorro, NM 87801-4855	
Joanne Cortese	Montana Coll. of Mineral Sci. and Technology, Montana Tech. West Park Street Butte, MT 59701		
Jennie Dautermann	303 Bachelor Hall Oxford, Ohio 45056	727 Martin Luther King Dr. Cincinnati, Ohio 45220	513-529-6519 513-961-7140 DAUTER@MIAMIU.BITNET DAUTER@MIAMIU.ACS.MUOHIO.EDM
Lynn Deming	Dept. of Humanities New Mexico Tech. Socorro, NM 87801	P.O. Box 28 San Antonio, NM 87832	505-835-5123 505-835-4429
Dr. Donna Dowdney	Chair, Technical Comm. De Anza Coll., Cupertino 1150 Newell Road Palo Alto, CA 94303-2932	21250 Stevens Creek Blvd.	

Name	Business Address	Home Address	Office Phone Home Phone E-Mail
David Dyrud	Oregon Inst. of Tech. Klamath Falls, OR 97601-8801	2027 Leroy Klamath Falls, OR 97601	503-885-1393 503-883-2365
Pamela S. Ecker	Cincinnati Technical College 3520 Central Parkway Cincinnati, OH 45223	1320 Grace Ave. #2 Cincinnati, OH 45208	513-569-1722 513-321-6928
Anthony Flinn	Eastern Wasington U. 511 East 19th Avenue Spokane, WA 99203		
Alex Friedlander	Dept. of Humanities Drexel University 32nd and Chestnut Street Philadelphia, PA 19104	137 Henley Road Overbrook Hills, PA 19151	215-895-1711 215-649-3990
Sam Geonetta	Dept. of Humanities U. of Cincinnati 2220 Victory Parkway, ML 103 Cincinnati, OH 45206	3318 Meadow Green Ct. Amelia, OH 45102-1144	513-556-6562 513-753-5449 GEONETSC@UC.BEH
Pat Goubil-Gambrell	Dept. of English Texas Tech. University Lubbock, TX 79409-3091	1019 Roosevelt Ave. Ames, IA 50010-5871	Need new Texas # 515-232-0040
Mark Haselkorn	Dept. of Tech Comm. FH-40 U of Washington Seattle, WA 98195	2125 East Interlaken Seattle, WA 98112	206-543-2577 206-325-4468 D5878@U.WASHINGTON.EDU
Laurie Hayes	College of Agriculture U. of MN, 277 Coffey Hall 1420 Eckles Avenue St. Paul, MN 55108-1030	2280 Folwell Falcon Heights, MN 55108	612-624-4212 612-645-1355 LHAYES@STAFF.TC.UMN.EDU
James M. Henry	George Mason University Dept. of English 4400 University Drive Fairfax, VA 22030-4444	3 Cedarwood Lane Beachwoods II Lewes, DE 19958	703-993-1188
Renee B. Horowitz	6257 E. Calle Camelia Arizona State University Scottsdale, AZ 85251		602-941-3099

CPTSC Membership - 1992

Name	Business Address	Home Address	Office Phone Home Phone E-Mail
Tharon W. Howard	(Purdue University) 206-11 Airport Road #11 West Lafayette, IN 47906	206-11 Airport Road #11 West Lafayette, IN 47906	317-743-2279
Robert R. Johnson	Dept. of English Bachelor Hall Miami University Oxford, OH 45056	218 N. Campus Avenue Oxford, OH 45056	513-529-7340 513-523-7607 BRJOHNS@MIAMIU .ACS.MUOHIO.EDU BRJOHNS@MIAMIU.BITNET
Walter Johnston	SUNY Inst. of Technology School of Arts and Sciences PO Box 3050 Utica, NY 13504-3050		
Dan Jones	Dept. of English University of Central Florida Orlando, FL 32816	427 Timberwood Trail Oviedo, FL 32765	407-275-2212 407-365-2627
William Karis	Dept. of Tech. Comm. Clarkson University Box 5760 Potsdam, NY 13699-5760	15 Leroy Street Potsdam, NY 13676	315-268-6484 315-265-7113 KARIS@CRAFT.CAMP .CLARKSON.EDU
Patrick M. Kelley	Analysts International Corporation 3030 LBJ Freeway Suite 820 LB52 Dallas, TX 75234	2225 Branchwood Drive Grapevine, TX 76051	214-243-2001
Maria Curro Kreppel	U of Cincinnati 105A Administration Cincinnati, OH 45221-0631	3267 South Woods Lane Cincinnati, OH 45213	513-556-4692 513-631-0616
Gisela Kutzbach	Dept of Engr. Prof. Development (EPD) U of Wisconsin-Madison 1527 University Avenue Madison, Wisconsin 53706	1138 Shorewood Blvd. Madison, Wisconsin 53705	608-262-4817 or 262-2472 608-238-0420
Tom Lang	Dept. of Sci Publications CFF Cleveland Clinic Fd 9500 Euclid Avenue Cleveland, OH 44195	13849 Edgewater Drive Lakewood, OH 44107	216-444-1260 216-228-6957
Nancy Mackenzie	English Dept. Mankato State U. Mankato, MN 56002-8400	621 Grant Avenue North Mankato, MN 56001	507-389-1166 507-387-1679 NMACKENZIE@VAX1 .MANKATO.MSU.EDU

CPTSC Membership - 1992

Name	Business Address	Home Address	Office Phone Home Phone E-Mail
Mike Markel	Boise State University 1910 University Drive Boise, Idaho 83725	2077 Springbrook Lane Boise, Idaho 83706	
Carolyn R. Miller	English Department, Bx 8105 North Carolina State U. Raleigh, NC 27695-8105		919-515-4126 CRM@UNITY.NCSU.EDU
Dennis Minor	Dept. of English Louisiana Tech. U. Ruston, LA 71272	1102 Glenwood Ruston, LA 71270	504 or 318-255-6045
Margaret Morgan	U of North Carolina Dept. of English Charlotte, NC 28223	9001 Nottoway Drive Charlotte, NC 28213	704-547-4211 704-549-5728 FENOOMPM@UNCCVM .UNCC.EDU
Charles Nelson	English Dept. Youngstown State U. Youngstown, OH 44514	6707 Shawbutte Street Poland, OH 44514	216-742-1649 216-757-1764
Nancy O'Rourke	Dept. of English Utah State U Logan, UT 84322-3200	PO Box 3833 Logan, UT 84321	801-750-3647 801-753-7755
Leslie Olsen	Tech Comm Program U of Michigan-111 TIDAL 2360 Bonisteel Ann Arbor, MI 48109 -2108	2114 Vinewood Blvd. Ann Arbor, MI 48104	313-764-1428 Ext. 7 313-995-5923 LESLIE.OLSEN@UM.CC. UMICH.EDU
Thomas Pearsall	651 Landings Way Savannah, GA 31411		912-598-8827
Jo L. Pevey	Southern College of Tech. Marietta Parkway Marietta, GA 30060	2410 Emberwood Ct. Kennesaw, GA 30144	404-528-7422 404-917-9871
W. S. Pfeiffer	Humanities & Soc. Sci Dept. Southern College of Technology 1100 S. Marietta Parkway Marietta, GA 30060	423 N. Woodland Drive Marietta, GA 30064	404-528-7202 404-424-1237

CPTSC Membership - 1992

Name	Business Address	Home Address	Office Phone Home Phone E-Mail
Nell Ann Pickett	Box 1266 Hinds Community College Raymond, MS 39154		601-857-3361 801-857-5165
Kenneth J. Rainey	Dept. of Humanities Southern Tech. 1100 S. Marietta Parkway Marietta, GA 30060	1194 Robert Lane Marietta, GA 30062	
Diana Reep	Dept. of English U. of Akron Akron, OH 44325-1906	750 Mull #3A Akron, OH 44313	216-375-7470 216-864-6113
Daniel Riordan	150B Harvey Hall U of Wisconsin-Stout Menomonie, WI 54751	1215 Wilson Ave. Menomonie, WI 54751	715-232-1344 715-235-7002 DRIORDAN@ UWSTOUT.EDU
Dr. Barbara Risch	Dept. of English and Philosophy NMHU Las Vegas, NM 87701	P. O. Box 1046 Las Vegas, NM 87701	505-454-3451 505-425-6674
Judith Rosenberg	College of Lake County 19351 W. Washington St. Grayslake, IL 60030-1198		
Carolyn Rude	Dept. of English Texas Tech. U. Lubbock, TX 79409-3091	3312 75th Street Lubbock, TX 79423-1308	806-742-2517 806-793-3542 DITCR@TTACS.BITNET
Marilyn S. Samuels	Dept. of English Guilford House Case Western Reserve Cleveland, OH 44106	3068 Warrington Road Shaker Heights, OH 44120-2461	216-368-2340 216-752-9334
Karen A. Schriver	Carnegie Mellon University 500 Forbes Ave. Department of English Pittsburg, PA 15213-3890	33 Second St. Extension Oakmont, PA 15139	(412) 268-6456 (412) 828-8791 KS0E.ANDREW .CMV.EDU
Ann Martin Scott	English Dept. Drawer 44691-USL U of Southwest LA Lafayette, LA 70504	PO Box 186 Cecilia, LA 70521-0186	318-231-5485 318-667-6414

Name	Business Address	Home Address	Office Phone Home Phone E-Mail
Jack Selzer	English Dept. Penn State U. Burrowes Building University Park, PA 16802	719 Glenn Road State College, PA 16803	814-865-0251 814-234-2935 JLS25@PSUVM
Alfred E. Sheldon, Jr.	Department of Communication CA State Polytechnic U. 3801 West Temple Avenue Pomona, CA 91768-4007	311 Sycamore Avenue Claremont, CA 91711	( ) 621-1922
Henrietta Shirk	Dept. of English Boise State University 1910 University Drive Boise, ID 83725	698 N. Hearthstone Drive Boise, Idaho 83702-1820	208-385-3983 208-336-3691 AENSHIRK@IDBSU.EDU
Charles H. Sides	Fitchburg State College PO Box 6317 160 Pearl Street Fitchburg, MA 01420		
Barbara Smith	Alderson-Broaddus College Box 2158, A-B College Philippi, WV 26416	16 Willis Lane Phillippi, WV 26416	304-457-1700 Ext 301 304-457-3038
Douglas B. Smith	English Department California Polytechnic State University San Luis Obispo, CA 93407		
Sherry Southard	Dept. of English GCB2129 East Carolina University Greenville, NC 27858	390 Claredon Drive Greenville, NC 27834	919-757-6041 919-355-0796
Katherine Staples	Tech Comm Dept. Austin CC Northridge Campus 11928 Stonehollow Drive Austin, TX 78758	508 Park Blvd. Austin, TX 78751	512-832-4831 512-467-8012
Stephen Stedman	Tech Comm Program Dept. of English, Box 5053 Tennessee Tech. U. Cookeville, TN 38505	2675 Lakeland Drive Cookeville, TN 38501	615-372-3763 615-528-3820 SJS8081@TNTECH
Kristene Sutliff	English Dept. SW Missouri State U. 901 South National Springfield, MO 65804	1050 E. Edgewood Springfield, MO 65807	417-836-5107 417-887-9020

CPTSC Membership - 1992

Name	Business Address	Home Address	Office Phone Home Phone E-Mail
Marty Terrill	North Arkansas Community College Pioneer Ridge Harrison, AR 72601		
Elizabeth Turpin	Dept. of Language and Literature Ferris State U. Big Rapids, MI 49307	19418 Golfview Drive Big Rapids, MI 49307	616-592-3988 616-796-7672
Chris Velotta	NCR Corporation Brown and Caldwell Sts. EMD-4 Dayton, OH 45479	Note: Corporate Member	513-445-3914
Thomas Warren	English Dept. Oklahoma State U. Stillwater, OK 74078-0135	920 W. Cantwell Stillwater, OK 74075	405-744-6218 405-624-3025
Merrill Whitburn	Dept. of LLC Rensselaer Polytech Troy, NY 12180-3590	11 North Hill Road Ballston Lake, NY 12019	518-276-6569 518-877-5310
Kristin Woolever	English Dept. Northeastern U. 360 Huntington Ave. Boston, MA 02115	118 Bedford St. Concord, MA 01742	508-369-5195
Carole Yee	Humanities Dept. New Mexico Tech 518 School of Mines Socorro, NM 87801		505-835-5323 505-835-3765 CYEE@NMT.EDU
Art Young	Dept. of English Clemson University Clemson, SC 29634-1503	106 Monaco Circle Clemson, SC 29631	803-653-3208
James P. Zappen	Dept. of LLC Rensselaer Polytech Troy, NY 12180-3590	9 Tamarack Lane Clifton Park, NY 12065	518-276-8117 518-276-4871 (FAX) 518-383-3749 USEREUC2@RPITSMTS .BITNET
Donald E. Zimmerman	Dept of Tech. Journalism Communications Research Lab Fort Collins, CO 80523	1716 Carriage Road Fort Collins, CO 80525	

Appendix E

THE CONSTITUTION OF THE COUNCIL FOR PROGRAMS IN TECHNICAL AND SCIENTIFIC COMMUNICATION

As Amended
Rochester, New York
October, 1989
Page 1

* * *

ARTICLE I
NAME: The name of the organization shall be the Council for Programs in Technical and Scientific Communication.

ARTICLE II
PURPOSES: The primary purposes of the organization shall be to (1) promote programs in technical and scientific communication, (2) promote research in technical and scientific communication, (3) develop opportunities for the exchange of ideas and information concerning programs, research, and career opportunities, (4) assist in the development and evaluation of new programs in technical and scientific communication, if requested, and (5) promote exchange of information between this organization and interested parties. Said organization is organized exclusively for educational purposes.

ARTICLE III
MEMBERSHIP: Membership shall be open to any individual or institution interested in supporting the purposes identified in Article II. Individuals or institutions whose primary responsibilities or functions are education shall be designated Regular Voting Members. Others shall be designated non-voting Special Advisory Members. Membership shall be open to any person without regard for race, age, sex, or religious affiliation.

ARTICLE IV
OFFICERS: The officers of the organization shall be president, vice-president, secretary, and treasurer, each to be elected for a two-year term. The duties of the officers shall be:

President:

(1) preside at the annual meeting or special meetings of the organization.

(2) represent the organization at official functions.
(3) serve as chairperson of the executive committee.
(4) designate others to perform duties.

Vice-President:

(1) perform all the duties of the president in the event of the president's absence.
(2) serve as managing editor of all publications.

Secretary:

(1) record official minutes of all meetings.
(2) maintain an up-to-date membership list and mailing lists.
(3) oversee correspondence.

Treasurer:

(1) handle all financial matters of the organization including the receiving and recording of dues and payment and paying the bills of the organization.
(2) transmit current membership information to the secretary on a regular basis.

The president, vice-president, secretary and treasurer, plus the immediate past president and three members-at-large, elected by the membership, shall serve as the executive committee. The executive committee shall have the right to act on behalf of the organization at such times as the organization is not meeting at the annual meeting or at special meetings, except to change the constitution or carry out elections.

ARTICLE V
LIMITS:

No part of the net earning of the organization shall inure to the benefit of, or be distributable to its members, trustees, officers, or other private persons, except that the organization shall be authorized and empowered to pay reasonable compensation for services rendered and to make payments and distributions in furtherance of the purposes set forth in Article II hereof. No substantial part of the activities of the organization shall be the carrying out of propaganda, or otherwise attempting to influence legislation, and the organization shall not participate in, or intervene in (including the publishing or distribution of statements) any political campaign on behalf of any candidate for public office. Notwithstanding any other provision of these articles, the organization shall not carry on any other activities not permitted to be carried on (a) by a corporation exempt from Federal income tax under section 501(c)(3) of the Internal Revenue Code of 1954 (or the corresponding provision of any future United States Internal Revenue Law) or (b) by a corporation, contributions to which are deductible under section 170(e)(2) of the Internal Revenue Code of 1954 (or corresponding provision of any future United States Internal Revenue Law).

ARTICLE VI
MEETINGS:

The organization shall convene an annual meeting. The location and approximate date of the annual meetings shall be determined by vote of members present and voting at an annual meeting. Special meetings of the organization may be held as needed and determined by the executive committee.

ARTICLE VII
FINANCES:

The dues of the organization shall be $20 per year for Regular Voting Members and $100 per year for non-voting Special Advisory Members. Memberships shall be based on a calendar year, and dues shall be payable in January.

ARTICLE VIII
ELECTIONS:

(1) The election of officers and members-at-large to the executive committee shall be by written mail-in ballot. The ballot will have a list of candidates who are members presented by the nominating committee, and all nominations will have secured permission.

There will be more than one candidate, as well as provision for writing in at least one additional nominee for each position open.

(2) The Immediate Past President shall chair the nominating committee and shall appoint, in consultation with the executive committee, four additional members: one from the executive committee and three from general membership, and shall announce committee membership at the annual meeting preceding elections.

(3) The nominating committee will have a slate of officers and members-at-large mailed to the membership no later than 60 days prior to the annual meeting. Ballots must be returned no later than 15 days before the start of the annual meeting.

(4) Results of the election will be announced at the business meeting of the annual meeting.

ARTICLE IX
CONSTITUTIONAL AMENDMENTS: Proposed amendments to the constitution must be in the hands of the members at least 60 days in advance of the annual business meeting at which the vote is to be taken. The constitution shall be amendable by a two-thirds vote of those present and voting and ballots mailed in to the secretary or proxy ballots from members unable to attend the annual business meeting accepted up to the opening of the annual business meeting.

ARTICLE X
DISSOLUTION: Upon the dissolution of the organization, the executive committee shall, after paying or making provision for the payment of all of the liabilities of the organization, dispose of all of the assets of the organization exclusively for the purposes of the organization in such manner, or to such organization or organizations organized and operated exclusively for charitable, educational, religious, or scientific purpose as shall at the time qualify as an exempt organization or organizations under section 501(c)(3) of the

Internal Revenue Code of 1954 (or the corresponding provision of any future United States Internal Revenue Law), as the executive committee shall determine. Any such assets not disposed of shall be disposed of by the Court of Common Pleas of the county in which the principal office of the corporation is then located, exclusively for such purposes or to such organization or organizations, as said Court shall determine, which are organized and operated exclusively for such purposes.

ARTICLE XI PARLIAMENTARY AUTHORITY: All official meetings, of the organization, shall be conducted according to the most current edition of the Standard Code of Parliamentary Procedure by Alice B. Sturgis. The presiding officer shall appoint a parliamentarian to advise the assembly at each annual meeting.